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AND

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CLINICAL LECTURE.

MEDICAL CLINIC.*

By FRANCIS DELAFIELD, M. D., of New York, N. Y.,
Attending Physician to Roosevelt Hospital; Consulting Physician to Bellevue Hospital, etc., etc.

I. CHRONIC NEPHRITIS WITH EXACERBATION.

Gentlemen:—

THE first case I have to show you is that of a man, thirty-two years old, who was admitted to the hospital on December 4th. There is no history of syphilis or rheumatism. There has been some dyspnœa on exertion for the past year. He was well until two weeks after an exposure to wet and cold. He had dry cough and pains in the back and calves of the legs. He kept about work until about one week ago. His legs, hands and face are swollen, and there is dropsy and dyspnœa on exertion. The urine was diminished in quantity. There were no eye symptoms and no palpitation of the heart. The dropsy is subcutaneous. Upon admission there was a general œdema on the outside of the body. His temperature was 98°, pulse 80, and his respirations were 24. The pulse was regular and the arteries were somewhat thickened. The urine had a

* A clinic held at the Roosevelt Hospital, New York, on December 13, 1897, and reported expressly for the TRI-STATE MEDICAL JOURNAL AND PRACTITIONER.

specific gravity of 1020, with 20 per cent. albumin, few casts, pus cells and blood.

Upon examining the left lung behind, there were found friction sounds and sonorous rales. There was hypertrophy of left ventricle; the liver and spleen were normal.

He was given one-half an ounce of citrate of magnesia, the hot pack of an hour's duration, and 1-100 of a grain of digitalin four times a day. The urine, day after day, was as follows: 29, 32, 45, 39, 27, 34 ounces. The urine has not, at any time, fallen to normal; at no time has it been scanty.

On the 6th, examination of the urine showed a specific gravity of 1010, with 30 per cent. of albumin, with hyaline and granular casts.

On the 7th, specific gravity was 1015, with 30 per cent. of albumin and same casts.

On the 8th, there was 35 per cent. of albumin. The digitalin was stopped, but the hot packs were continued.

On the 9th, the dropsy seemed to be increasing; the urine had a specific gravity of 1020; albumin, 30 per cent.

On the 10th, he began to vomit and complained of headache. The pulse remained the same. He passed urine involuntarily. He was very restless and developed nausea and delirium, the temperature running up to 102½°. The delirium alternated with stupor. He was then placed on mixed bromides and chloral, aa grs. v. every three hours.

On the 11th, there was the condition of alternating stupor with delirium.

On the 12th, there was stupor all day; the restlessness and delirium continued.

On the 13th (to-day), the urine remains about the same; specific gravity, 1015, with 35 per cent. albumin, and the amount of urea, grs. x. to the oz. This is a history of chronic nephritis with exudation, complicated by alcoholism. In patients like this they may not develop cerebral symptoms until after they have been in the hospital for a few days. Is the delirium due to alcohol, or is the delirium and stupor due to uræmia? If the cerebral symptoms only last for a few days, it is due to alcoholism. These symptoms, if due to chronic uræmia, belong to chronic nephritis, and the man would not be likely to improve. Now this man's nephritis is about as active as when he came in; there is the same percentage of albumin in the urine, and about the same number of blood cells. This is a case of chronic nephritis with exacerbation. The diagnosis is made from recent experiences. This man has had chronic nephritis for some time; I do not know for how long. When he got up stupor and delirium; it was probably due to alcoholism, in which case the prognosis is much better. Dropsy has gone away; œdema of the legs has disappeared altogether; dropsy in the scrotum has gone. The hot pack has done that for him, if nothing else. The nephritis is still going on. We are keeping him quiet in bed on a milk diet and employing the hot packs, and now I think we will give him tincture of aconite.

The next case I wish to show you is a man, twenty-nine years old, who was admitted to the hospital on the 28th of November. His habits were fairly good. His story is that he was perfectly well until three months before

the 28th of November, when, without known exposure to cold or wet, dropsy of feet and legs occurred and dyspnœa on exertion. He had occasionally palpitation of the heart. He sees fairly well and his bowels are regular. His chief complaint is cough and dyspnœa. The urine is diminished in quantity. When he came into the hospital his temperature was 98.8°, pulse 100 and irregular. There was no thickening of the arteries. There was dropsy of the legs, scrotum and penis, and but little fluid in the abdominal cavity. There was some dyspnœa. The urine had a specific gravity of 1020 and contained 10 per cent. albumin, hyaline casts and a few red blood cells. Over the base of both lungs and axillæ there was dullness on percussion, diminished breathing and friction sound. Sonorous rales were present over both lungs. He was put to bed and a milk diet given him. He was to have hot packs, digitalin, 1-100 of a grain, four times a day, and the addition of dry cups over the lumbar region. The quantity of urine passed, as shown by the chart, was 28, 15, 22, 60, 70, 55, 50, 51 and 61 ounces, and he is now passing little more than the normal quantity. He sweated well under hot packs.

On December 1st, hyaline and granular casts were present.

On the 2d, dropsy goes away, dyspnœa less, and he felt better.

On the 4th, he was a great deal better.

On the 5th, he began to sit up and for the first time was given solid food.

On the 6th, albumin fell to 5 per cent.; on the 8th, 5 per cent.; on the 9th, 10 per cent.; on the 11th, 5 per cent. To-day the urea represents six grains to the ounce.

This is another example of the same form of chronic nephritis with the same symptoms that occurred in the preceding patient. There is subcutaneous dropsy, marked loss of nutrition, anæmia and general bronchitis; the same dyspnœa and little increase in the size of the heart. This man had no cerebral symptoms, but the anæmia and prostration were more marked when he first came in. There was no delirium or stupor in this case.

The urine in both cases was the same in character; diminished in quantity. Both are subacute in character. In the first case the percentage of urea was six grains to the ounce; seven grains to the ounce in this man. In both there was a fair quantity of albumin: in the preceding case there was 30 to 35 per cent. albumin; in this man, 15 per cent. In the preceding case the albumin was not diminished under treatment; in this man it is diminished to 5 per cent. It is evident that of these two patients the exacerbation was more acute in the first than in this patient. In both cases the treatment has been directed to the dropsy, which has disappeared, except in the feet of this man, which is probably due to his sitting up. In both patients the general condition has been improved, but in this there is more evident improvement of the nephritis. Both patients, judging from past experiences with this class, will get better, leave the hospital and go to work again. It means that they have gotten over their exacerbation, but they are not cured of their nephritis. When they get better they go out again to work, and we may see them again with another exacerbation.

II. Catarrhal Colitis.

Here is a boy, fifteen years old, who came into the hospital on December 3d. He was in good health until four months ago, when, without apparent cause, a diarrhœa set in. He had six stools a day, which were watery and contained blood. He did not notice any mucus. Upon admission he had some abdominal pain. He has had no rectal pain or tenesmus. The blood was a bright-red color, and in large quantities. His temperature was 99.6°, his pulse 80, and respiration 24. The urine had a specific gravity of 1010, and was albuminous. There were no physical signs over the chest and abdomen. The stools, when he first came in, contained mucus and blood in large quantities; one stool that I saw contained as much as one-half a pint of mucus and blood, and contained no fecal matter at all. Large discharges of thickened mucus continued for several days. When he came in the stools were six in number; then followed, each day, three, three, three, two, two, one, one, none, none—all largely mucus and blood, and no fecal matter. About the 10th there appeared fecal discharges instead of blood and mucus. That has been the condition of things from the 10th up to the present time.

When he first came in he was placed on a diet of milk, but it was not until the 9th that meat was given him. The treatment that I gave him was:

℞ Morphine ..... gr. 1-15th
Cubebi pulv ..... grs. v
Subnitrate of bismuth ..... grs. v
M. S.—Four times daily.

Yesterday I reduced the amount to twice daily, instead of four times daily.

In addition to this, I irrigated the rectum every day with a normal saline solution, six-tenths of 1 per cent., at a temperature of 100°. This treatment was kept up until the present time. Under this treatment he improved rapidly. This is a catarrhal condition of the lower part of the colon. There does not seem to be any special irritation above the anus, or of the anus itself. There is no blood and mucus from the inflammation of the part, and the condition is now one of subacute catarrhal colitis.

The patient is emaciated, pale, and he really looks badly. In a colitis of this character, involving the middle and lower portion of the rectum, one had better continue the local and the general treatment. The medication he is now getting is a combination of morphine, bismuth and cubebs. The next thing we will do will be to take away the morphine, and give him five grains each of the bismuth and cubebs. We do not wish to stop the fecal discharges entirely. The irrigations will be kept up until the discharges cease to contain mucus and blood. We will give them every day, then every other day, etc. These irrigations are made by means of a double tube invented by Dr. Kent, of this city. It has an inner and an outer tube, which permits the fluid readily to flow out. No trouble will be experienced in introducing the tube if it is entered quietly, gently and slowly. If the water does not run out well, pull the tube out a little ways. By regulating the outflow, we can distend the colon and make the fluid run a variable distance up it. The house physician will now irrigate the

rectum for you, and show you how the thing is done. The quantity used is about two quarts.

III. EXOPHTHALMIC GOITRE.

The next case that I show you is a lady, twenty-five years old, who was admitted to the hospital on August 17th, with a history of having been perfectly well until three years before this date. There was no history of nervous shock or known cause to produce palpitation of the heart, which she complained of, particularly when she was excited. The eyes were prominent, and later there appeared swelling of the thyroid gland. The symptoms were those of exophthalmic goitre. This increased frequency of the heart's action, with nervous symptoms and prominence of the eyes, and enlargement of the thyroid gland, were the signs that made this diagnosis easy. The rapidity of the heart's action was a little complicated. At the time she came in she suffered from malarial fever, which had nothing to do with the other symptoms. The frequency of the pulse varied from 120 to 136, which was pretty rapid. At the time she came in the exophthalmus was more marked than it is now. In addition, she was feeble and emaciated. Her weight when she came in was 87 pounds, and she was in miserable condition.

On the 6th of September she was placed on treatment. Exophthalmic goitre is one of those diseases whose cause has not yet been determined. One of the theories at the present time is that it is due to auto-intoxication from the intestinal tract. At present we are carrying out Dr. William H. Thompson's plan of treatment, which is attended with fair success. That is the plan this woman was placed on September 10th, and she has been on it ever since. She has carefully carried out the treatment to the present time. The disease is supposed to be caused by auto-intoxication of the intestinal tract; therefore, intestinal antisepsis is used. The plan was started on September 10th, with a restricted diet of peptonized milk, matzoon, bread, rice, and fresh tomatoes. The latter proved to be very indigestible, and in their place eggs were given. Then for the intestinal antisepsis was given five-grain blue pill. There was then ordered for her:

℞ Beta-naphthol ..... gr. v
Benzoate of soda ..... gr. ijss
Ichthyol ..... gr. ⅝
M. Et fiat capsulam No. 1. Sig.—Take two daily.

There was also given tincture of strophanthus, probably on general principles. On the 15th of September, tincture of aconite was given for its effect on the heart; it was given in five minim doses. Went on in this way, giving a blue pill every two weeks, and later adding five grains more of benzoate of soda to the capsules. As the result of the treatment there has been considerable improvement of the condition. The goitre has gone. The exophthalmos still exists, but is not so marked. The rapidity of the heart's action has not improved, but is about as bad as ever. Notice, that the goitre has disappeared almost entirely. She has been steadily gaining flesh and strength. On October 4th, she weighed 95 pounds; on the 30th, 98 pounds; pulse was 120 to 140. On November 9th, 104½ pounds; on the 15th, 106½ pounds; on the 29th, 110½ pounds; on December 6th, 111½ pounds—this is the maximum weight that she has attained.

Here we have an opportunity of showing you what can be done by carrying out a plan of treatment fully for some time. Now notice what has happened. She has gained strength; her goitre has disappeared; in her neck we can just feel her thyroid gland; the rapid heart's action has not improved—it is just as it was when she came in, from 120 to 140 beats. Dr. Thompson's plan was to keep up treatment for two years. When a patient gets as well as she is, and is able to go about through that diet of peptonized milk, matzoon, bread, rice, and fresh tomatoes or eggs, and she goes out, you must not imagine that she is going to keep to that diet; it is not easy to keep them under so strict a diet. If the rapid heart's action continues, there follows hypertrophy, and experience has shown that the temptation becomes strong to use some other plan of treatment to regulate the heart's action and see if you cannot improve it in that way. And here, in this case, I do not want to interfere with the treatment which has been used as long as this has. If she goes out of hospital to-day, her diet will not be carried out twenty-four hours longer.

ORIGINAL ARTICLES.

TUBERCULOSIS PERMANENTLY CURED BY SERUM.

By J. A. Dunwody, M. D., Cripple Creek, Colo.

AS TO the permanency of the relief of symptoms of tuberculosis in those cases in which I have used the antitubercle serum (Paquin), I have this to say, referring to cases on which I have made a previous report:

In case No. 1, the last injection of serum was administered on March 20, 1896, since which time all symptoms have remained relieved. That is, there is no cough whatever; temperature has remained absolutely normal, and weight has increased to one hundred and fifty-eight pounds and remained at that point. There are no points of solidification, and the vesicular respiration is normal, which fact was revealed upon thorough physical examination. The patient expresses himself as not having been in as good health even before he was attacked with tuberculosis. There can be no doubt about this case having been one of tuberculosis, as the diagnosis was confirmed by Dr. William Pepper, of Philadelphia, and subsequently by the late Dr. Alfred L. Loomis, of New York. In addition to this, there had been several tests made of the sputum, and in every instance the microscope revealed the presence of tubercle bacilli.

CASE 2.—H. H. Has not had an injection since March 1, 1896. All symptoms of tuberculosis have disappeared; no cough whatever; the temperature has remained normal and the weight has increased to forty-two pounds. The little patient is quite robust and in most excellent health. Upon physical examination I find that the left lung, where the lesion had been, is quite clear, no abnormal sounds; the vesicular respiration free, easy and perfectly normal.

CASES 3 and 4, respectively, have not been relieved as each of the other cases; have discontinued the use of the serum of their own volition. Though it is doubtful if they would have ultimately been cured, for the reason that each one had the mixed infection. In Case 4, as I have stated in a previous report, he was addicted to the disgusting habit of masturbation.

I feel satisfied that should the antitubercle serum be employed in those cases of tuberculosis before they have the mixed infection, that the results would be far more satisfactory than by any other known line of treatment.

A CASE OF MYIOSIS NARIUM.

By VICTOR CADWELL, M. D., of Poplar Bluff, Mo.

ON AUGUST 1, 1897, the patient came to me, saying that for two or three days previous he had been suffering great pain in the region of the frontal sinus, left eye, left side of nose, left antrum and throat, accompanied by a thin, watery-looking and exceedingly offensive discharge from the nose; that on the morning of the day he came to me, on blowing the left side of nose violently, about a dozen worms (he thought them maggots) were discharged from the nose.

The left cheek was swollen, and wore an erysipelatous-looking blush, and the left eye was almost closed. There was a copious, thin muco-purulent discharge from the nose, which was very offensive.

On examination, I saw something moving high up at the roof of the nose, which, when removed with the forceps, proved to be another worm, and as soon as one was removed another appeared at the same place, until about a dozen were taken out. Examination of the throat showed the soft palate pouched down until it rested on the tongue, causing the act of swallowing to be accomplished with great difficulty and occasional regurgitation through the nose. Judging that I had a case of "screw worms," I tried both local application and inhalation of chloroform, and gave him Dobell's solution, strengthened with carbolic acid to about 2½ per cent. solution, to use in the nose and throat. Neither seemed to have any effect in bringing away the worms, though occasionally one would crawl out of the nose.

The following morning I removed with the forceps about thirty worms.

The patient's condition was now pitiable, the worms appearing at both nostrils, and the discharge from the nose more profuse and offensive; temperature 102°, and the pain so severe that constant use of opiates was necessary. The turbinated bones and vomer were denuded. I now turned to the insufflation of calomel into the nose and throat, having heard that it had proved beneficial in similar cases, with no more effect than before. During the following day over 100 worms were removed, the act of swallowing had become almost impossible, his eyes swollen shut and the discharge horribly offensive. His brother having come, I told him that I considered recovery impossible and sent him to his home in Illinois to die. He took with him a plentiful supply of the carbolized Dobell solution and necessary opiates. To my surprise in about three weeks he returned to Poplar Bluff well and resumed work. He had used nothing after going home but the Dobell solution, and said that after the first few days after leaving Poplar Bluff, the number of worms decreased until none appeared and his nose gradually got well.

NOTE.—Dr. Warren B. Outten, chief surgeon of the Missouri Pacific Railway, has seen five cases of myiosis narium, of which four died—one from aneurism, and three from septicæmia.—EDITOR.

THE BLUES: PATHOLOGY AND TREATMENT.

By WILLIAM F. WAUGH, A. M., M. D., of Chicago,
Professor of Practice, Illinois Medical College.

TIME was when a man who felt discontented with himself and his environment could explain it in a few words and be let alone: "Oh, just a fit of the blues;" and nothing more was necessary. But science is never satisfied to let well enough alone; she must eternally be poking about the foundations of things, to ascertain if they are really and truly founded on the eternal rock of truth, or only upon the shifting sands of current belief.

The universal badness of all things sublunary was thought to be an integral part of the Christian's belief; or at least such a pessimistic conviction was considered highly creditable to its holder, by multitudes of good people who would be shocked to learn that this is only a Gnostic heresy that has crept into the Christian church. But the modern philosopher is not so much concerned over the origin of evil as he is about the means of combating it; so that when his friend remarks that things are about as bad as they can be and the world is going to the demnition bow-wows, the doctor immediately interests himself in the state of the pessimist's liver.

And with good reason, too; for it is certain that when the fair face of nature is obscured by the sickly hue of jaundice, the tint is furnished by the looker exclusively. The liver is really at fault. Generally it is because the patient has eaten too much or too rich food, or has neglected to take the amount of exercise that his body requires, or more frequently from both causes combined. The liver falls off in its functions, its ducts become clogged, the bile is not excreted, the gland becomes swollen and the seat of dull pain and heaviness, and a whole train of symptoms results from the absence of a due amount of healthy bile in the alimentary canal. It is not often, however, that we have the light-colored, acholic stools of catarrhal jaundice. On the contrary, the stools are more apt to be dark colored, though exceedingly offensive. Constipation is always present, usually from costiveness. The decomposition of the intestinal contents, the generation of toxines, and their reabsorption into the blood, are matters of course. Whether there are various toxic bodies, producing variations of symptoms, or whether mercaptan chloride is, as has been claimed, the sole producer of mental despondency, is a question for the future. We know that the effect of the vitiated blood is manifested in all the organs. The heart-rate is slower and weaker, the respiration is somewhat oppressed, so that it may require some voluntary effort, such as an occasional long-drawn sigh. The muscular power is depressed, the limbs feel heavy, and the motions are sluggish. The appetite is gone, and food is taken without relish. The kidneys try bravely to compensate for the delinquency of the liver, and the urine is heavy, dark, loaded with aromatic products, and some irritability of the bladder is thereby produced.

The mental phenomena are too well known to require detailed description. The disposition to take a gloomy view of things general and particular, the sluggishness of the intellectual functions and difficulty in compelling the mind to work in any special manner are the principal characteristics. Were I a promoter, desirous of bringing a new enterprise before a capitalist whose bank account needed depletion, I would bribe his valet to administer a cathartic the day before our interview.

But the treatment requires far more than an occasional cathartic. The habit of physicking is not commendable, and is, besides, only of temporary use, as the patient who takes such drugs regularly will soon be increasing his supplies of food correspondingly. The occurrence of a fit of the blues should lead to a rearrangement of the diet and habits. Men who do brain-work should eat fruits and fresh vegetables, and be sparing in their use of meat, milk and coffee. No better drink can be taken than oatmeal gruel. A part of the meal should consist of hard, dry food that requires long mastication; such as oaten scones, hard tack, dry toast, whole wheat, etc. Fruit juices should be taken in generous doses—a half pint or more at each meal. Sugar is as bad as meat. The quantity of water taken depends on the weight. If little albumen is consumed, less fluid will be required, unless it is desired to fatten the patient. All cold drinks and ices at meals should be forbidden.

The morning cold or salt bath is a valuable means of increasing oxidation. A long, brisk walk, or a bicycle ride, is an effectual means of cure.

Although a blue pill is very often given with benefit, podophyllin is a

better remedy. The dose should be small; in fact, it is doubtful if there is ever an indication for a larger dose of podophyllin than one-twelfth of a grain. Like aloes, it is always a "small-dose" remedy. It does not act for twelve hours, but never fails to correct the dark, offensive stools.

But we need not wait for its action. Relief can be had much sooner from the use of intestinal antiseptics. The action begins in the mouth and stomach, for before the bowels have moved the pasty coating begins to leave the tongue and the stomach to call for food. About six of the W-A intestinal antiseptic tablets, a combination of sulphocarbolates, form a day's dose for an adult, one being taken every hour until the six are used, then suspend them until next morning. Very soon a feeling of decided relief ensues, and the patient brightens up. It is a curious fact that patients suffering with naso-pharyngeal catarrh are always worse when they have intestinal sepsis, and the catarrh improves when these tablets are taken.

No drug can be rightly termed a specific when the true remedy required is the correction of the habits, but the sulphocarbolates come nearer to being specific for an attack of "the blues" than any medicament that has preceded them.

103 State street.

SYPHILIS OF THE SPINAL CORD.*

By ARTHUR E. MINK, M. D., of Saint Louis.

Professor of Mental and Nervous Diseases, College of Physicians and Surgeons, St. Louis; formerly Physician to the New York City and Kings County Insane Asylums; Consulting Neurologist to the Baptist Hospital and Woman's Hospital, St. Louis.

ONLY within the last decade has the frequency of spinal syphilis been recognized. This subject has been studied with renewed interest since the great myelologist, Erb, announced the discovery of his so-called type of syphilitic spinal palsy. This syndrome is characterized as follows: spastic paralysis of the lower extremities, marked exaggeration of the tendon reflexes with low muscle tension, slight disturbance of sensation, and involvement of the bladder, and, I may add, often of the rectum.

In my experience, the early involvement of the bladder and rectum is pathognomonic of this form. We can almost say the same of the early appearance of impotence. In some cases we may find priapism. The limbs begin to show increasing stiffness and weakness, accompanied by

* Read before the St. Louis Academy of Medical and Surgical Sciences, January 18, 1898.

paræsthesias and paralgesias. Vague girdle symptoms are often complained of. The patient often feels as though electric currents were traversing the skin. There are often burning sensations in the skin, a feeling of trembling in the back and limbs; or perhaps, instead of this, a drawn feeling. Paræsthesias are often marked about the arms and neck of the bladder. Hyperæsthesia of the back is present in one of my cases. Lancinating pains may be present in the vertebral and sacral region, or there may be a girdle pain. Pains may occur in the abdomen, legs, knees, hips, breast, intercostal region—in short, in any part of the body excepting, perhaps, the head, neck and arms. The sensory disturbances are all of the subjective order. It is not often that both limbs are affected simultaneously, the affection beginning in one limb and then spreading to the other. One limb is usually worse than the other, and jerking is often present, especially at night. The symptoms often come and go, but nevertheless there is a gradual tendency to improvement. It must, however, be borne in mind that Erb's type is not the only form of syphilitic spinal palsy; for, like cerebral syphilis, the symptomatology of spinal syphilis is most variable and protean.

We hold, with Oppenheim, that all the various forms of spinal syphilis are the result of one pathological process, viz., a meningitis chronica syphilitica, or, more properly speaking, a meningo-myelitis syphilitica. Now, the symptoms resulting vary with the location of the lesion. If the pyramidal tracts are affected, we then have the symptoms of Erb's type. If at the same time the anterior horns are involved, we may have then a symptom picture resembling amyotrophic lateral sclerosis. Involvement of the posterior columns can produce a pseudo-tabes syphilitica. In some cases, the anterior horns in the cervical and lumbar regions are more particularly involved, and thus may be produced symptoms of muscular atrophy. We have met with two cases which presented the symptoms of a combined sclerosis. In some rare cases, disseminated gummata have produced symptoms resembling multiple sclerosis. The inner surface of the dura mater is sometimes involved, but as a rule the leptomeninges are most often involved. They become infiltrated and thickened with the syphilitic granuloma, and here and there we may find flattened gummata. There is a decided tendency for the leptomeninges to form adhesions on the one side with the dura mater, and on the other side with the cord. The dural sac appears to be swollen, and is difficult to open on account of the numerous adhesions; in one of my cases extending from the region of the second to the tenth dorsal vertebra. In some cases numerous flattened or wheal-like gummata are scattered throughout the exudate. The exudate is here and there caseous, amyloid, gelatinous, or more rarely fibrous in appearance. The lesions are usually diffuse in extent, spreading over quite a large extent of the surface of the spinal cord. In some rare cases we may find the circumscribed tumor formation. Microscopically we find at the affected portions the leptomeninges thickened by the characteristic dense, small-celled, vascular infiltration.

The process tends to invade the cord along the blood vessels and connective tissue septa. Nearly all the vessels show signs of an arteriitis syphilitica. The *dura* mater is usually thickened and adherent to the leptomeninges in many cases. The parts of the cord most often invaded

are: first, the crossed pyramidal tracts; next, the posterior columns, and next, the anterior. However, any part of the cord may be invaded.

The nerve roots situated in the diseased area may be normal, or infiltrated and atrophied. The dorsal part of the cord is the part most usually affected. Often, however, other portions of the cord may be involved.

There is not the slightest doubt that owing to the fact that only lately has spinal syphilis received its proper share of attention, it was formerly mistaken for other non-syphilitic affections whose masks it wore. So a disseminated or diffuse syphilitic myelitis can simulate the syndromes of multiple sclerosis or a non-specific myelitis. In the same way there often occurs the counterfeit tabes dorsalis of syphilis. So we may meet with a combined sclerosis or a polio-myelitis due to syphilitic lesions of the cord. Again, protean characteristics are as much the appanage of syphilis of the cord as of the brain, and so for this reason it would be impossible to lay down a symptomatology which would hold for all cases. If, however, we were asked to point out those symptoms which are pathognomonic of the heterogeneous forms of spinal syphilis, we would say, without hesitation, primary involvement of the bladder and rectum, and often impotency is one of the signs which distinguishes a pseudo-tabes syphilitica. It is also present in Erb's type; and in all other forms, it is in the writer's opinion, that which stamps the disease as specific. The writer has at present under his care a case of combined sclerosis of the cord due to syphilis, where the bladder and rectal symptoms appeared at least three months before any other manifestation of the disease. In many cases the presence, or history of cerebral syphilis will aid us in diagnosis.

Progress by jumps is another characteristic. The symptoms, too, come and go or succeed each other in a helter-skelter way. The sensory disturbances found in syphilis of the cord are usually subjective, and so the results of objective examination are, as a rule, negative. Syphilis of the cord appears usually within six years after infection; sometimes, however, we may find it occurring within a few months.

In treating this affection, if the patient has a jarring occupation, e. g.: railroading, etc., it should be interdicted. It is advisable to obtain as much rest as possible for the patient, especially in severe cases. The diet should be a plain, nutritious and digestible one. Tea, coffee, alcohol and tobacco should be forbidden. The functions of the bowels, skin and kidneys should be stimulated, and the patient should take a hot water or air bath every other day for a time. The grand object, however, is to destroy the luetic neoplasms in and around the cord. This we accomplish by means of mercury and compounds containing iodine.

Mercury, the grand destroyer of the syphilitic growth, induces destructive tissue change in these morbid products; and iodine, by stimulating the activity of the lymphatic and glandular apparatus, removes the *debris* from the organism. We use mercury in the form of inunctions, rubbing in from a half dram to a dram daily until we obtain stomatitis.

This latter can be greatly retarded by cleansing the mouth several times daily. The patient will usually bear this for three or four weeks, or even longer, if we are careful.

It should then be discontinued, to be resumed later. Most patients of this class are afflicted with cardiac and gastro-intestinal irritability, and

for this reason I have long since ceased to torture my patients with the iodides of sodium or potassium, and have been using in their place Gardner's syrup of hydriodic acid with the utmost satisfaction. I find it just as efficacious, and much more agreeable, than the iodides and the other preparations of hydriodic acid. It can be given before meals, the best time for absorption. It can be continued for a long period without any ill effects.

Patience and persistence are of primal importance in treating these affections. Half-way measures are of no avail. The physician should know exactly what he wishes to do, and then stick to it like a bull dog.

The prognosis in most cases is relatively favorable. If the patient comes to us early, and before degenerative changes are pronounced in the cord, our patient and persistent efforts are often rewarded by the most satisfactory results.

HYPERTRICHOSIS.

By A. H. OHMANN-DUMESNIL, Saint Louis.

YPERTRICHOSIS is classified as being one of the hypertrophic diseases affecting the hair, but it is really more of the nature of a deformity. As a matter of fact, it is not an increase in the number of hairs, as the name would seem to imply, but rather in their size, both in diameter and length. Hairs which are normally short and fine, such as the lanugo hairs, suddenly grow in length and diameter. This is most marked in the case of moles, which, covered ordinarily with very fine lanugo hairs, will develop long, dark and coarse hairs, which give an almost repulsive appearance to an otherwise fair face. Owing to the generalized distribution of lanugo hairs, it naturally follows that hypertrichosis may occur upon any portion of the skin. Certain exposed parts are exempt, however—such as the carmine of the lips, the eyelids, the soles, the palms, and the dorsum of the distal phalanges of the hands and feet. And yet I have seen stiff, bristle-like hair growing out of the cornea, simply due to some antenatal displacement of a portion of the external blistodermic membrane. This is, of course, a rather singular occurrence, and yet there is no record of hair growing upon those parts which have been mentioned above as being never subject to hypertrichosis. Hairs of ordinary length also grow to be many feet long, and examples of long-haired women and long-bearded men are comparatively common. Some, as, for example, in which the beard attains a length of fifteen or twenty feet, are rather rare examples of the condition, and yet the wearers of such consider it neither a disease nor a deformity, but rather seem to take a

pride in it. Another variety of increased growth of hair consists in the relative increase in the number of hairs, and this may be daily observed in some individuals whose hair or beard is then said to be "thick" or "bushy," and is always refractory to all attempts made to brush or comb it smooth. Then, again, we meet with examples of an increase in the

FIG. 1. Homo Pilosus.

size and length of the lanugo hairs, and it is this variety which more nearly concerns us, as it then constitutes a true deformity which, in many instances, may be relieved by appropriate treatment.

The homo pilosus, or hairy man, of which a good example is shown in Figure 1, is far from being a rarity. It will be seen that his body is

covered with a well-marked growth of rather long hairs, which are fine. In this individual the hairs were silky to the touch, and did not have the coarseness and roughness which we might expect in one of his age. His beard was soft and silky, and he is but one of a very common type of individuals. They can be frequently observed, and more especially among that class who labor hard, such as sailors, day laborers, etc. On the other hand, many whose occupations entail very little or no physical exertion, are found to present the same condition of the trunk. Other portions of the trunk may be affected by a localized form of hypertrichosis. Thus, a locality not infrequently the seat of hypertrichosis is the ano-genital, more especially in females. The writer has seen women in whom the hair of

FIG. 2. JO-JO.

the pudenda was of quite a marked length, being as much as twelve inches long in some few instances. As is well known, a large majority of men have quite a strong growth of hair upon the chest, about the sternal region, and it varies in them from a few long hairs to quite a large, bushy growth. What is by no means common, is to see women with a marked growth between the mammæ, and yet this does occasionally occur. Finally, we have so-called hairy children who are seen at times. As a rule, they are not cases of true hypertrichosis, but rather of nevus pilosus or hairy moles; and this is an entirely different condition, which is, perhaps, a still greater deformity and more serious, from the fact that it becomes more marked with age. Taken all in all, it may be stated as a

general law that hypertrichosis is apt to occur in all those localities in which hair follicles are to be found. In other words, wherever hair grows it may become hypertrophied, and an apparent increase in the number of hairs is very often due to the development of the extremely fine and tenuous hairs which are to be found in the ducts of the sebaceous glands.

Hypertrichosis of the face certainly deserves special mention, for more reasons than one. It is that form for which aid is sought more often than for any other, on account of the fact that it is so apparent to any one looking at the afflicted individual. Among the most marked examples of this condition, as well as among the best known, has been the case of Jo-Jo, the Russian, a picture of whom is given in Figure 2. A mere glance will show the strong growth on his face, head and ears, and yet it is very easy to perceive that his eyelids and the carmine of the lips are free from hair. His whole body was covered with hair some three or four inches long, of a soft, downy nature. There are occasionally to be observed true bearded women, whose only masculine attributes are the whiskers which cover the face. These have been claimed by some to be men who had feminine voices, but I have had occasion to examine one who had perfectly formed breasts and a normal vagina, uterus and ovaries. In fact, she had all the essential attributes of a woman, was married and had borne children. There could exist no doubt that she was a veritable *lusus naturæ*, and not an ordinary fraudulent showman's fraud. But much less prominent examples of hirsuties of the face in woman are seen daily. The most common are certainly those in old women who acquire a rather marked growth of stiff, bristly hair upon the upper lip and chin. In those who are younger, more especially in brunettes, a perceptible growth is often apparent, although it is not very heavy. The chin, the upper lip, the sides of the face, and the forehead, are the principal visible seats of the trouble. In some the development becomes such that it is well marked, more especially if there has been an attempt made to get rid of the hair by shaving. This is certainly a fatal habit and should be discountenanced as much as possible, as it only serves to aggravate the existing condition and render it more apparent and coarser looking so far as the hairs are concerned.

When the affected portion is covered by clothing there is but little or any attention paid to the condition, and yet it is, in many instances, more interesting than the ordinary forms which are so often observed. Some of these may be heterotopic, and on this account they are more than ordinarily deserving of attention. The condition which is shown in Figure 3, and which I have detailed some time ago,[1] has been termed by Bartels as a "heterotopy of trichosis," and the ordinary causes of hypertrichosis cannot be called upon to account for its presence. It is most often seen in the lumbar region and, occasionally, is accompanied by a spina bifida. In the case delineated in Figure 3, the total length of the growth could not be ascertained with exactness, as the patient would cut off the hair when it attained a greater length than a foot, although he stated that he had permitted it to grow some three feet, and as it showed no tendency to cease growing he determined to cut it off. No appreciable cause could be found to account for the hypertrichosis. A consideration

[1] *Journal of Cutaneous and Genito-Urinary Diseases*, March, 1888.

of this leads us most naturally into an inquiry into a number of questions regarding the causes and origin of the disease or condition.

To begin with, hypertrichosis may be congenital or acquired. In the former it manifests itself during childhood, and becomes more marked with advancing years; and it is much more apt to be generalized than when acquired. On the other hand, the acquired variety does not become apparent until puberty. In males it is at this period that the beard begins to make its first appearance; and in both males and females it is at puberty that the hair first makes its appearance in the axillæ and about the genitalia, more especially on the monsveneris. But hypertrichosis will show itself in the form of a small growth upon the faces of women, and more especially of those whose complexion is dark and hair black. Even

FIG. 3. Heterotopic Hypertrichosis.

those who have never exhibited any signs of hirsuties will show a growth of coarse hair about the upper lip and the chin after they have passed the climacteric. It is also noted that insane women will develop an abnormal growth of hair upon the face when the mental trouble becomes chronic. Another fact in connection with hypertrichosis, which is noted, is that as age advances the hair not only blanches, but each one becomes coarser. This is most noticeable in the case of the eyebrows. In addition to this the vibrissæ of the nostrils and of the ears become longer, coarser and thicker, and look like bristles. In some cases the growth is so thick that the openings of the ears and of the nose become completely occluded.

The causes of this condition seem to be rather obscure. In some cases

it would seem to be a hereditary malformation which descends from child to parent. How this occurs, however, has never been satisfactorily explained by those who uphold this theory. On the other hand, disturbance of the cerebro-spinal axis would seem to act as a potent factor in the production of a growth of hair in those free from it anteriorly. As has been mentioned above, insane women manifest the trouble, but I fail having seen a record of or seeing an insane child develop an abnormal growth of hair; which may, perhaps, depend upon an incomplete development of the pilous system. Again, certain irritative conditions of the cord may bring on quite a marked growth of the lanugo hair. Some years ago I reported such a case,[2] in which the entire face, including the forehead, was affected with hypertrichosis which came on suddenly. General treatment directed to the improvement of the condition of the cord brought about a sudden disappearance of the hairs. There are local causes, however, which must not be overlooked. The stimulation of the skin will accentuate the growth of lanugo hairs and make them very prominent. The frequent application of vaseline or of lanoline will also produce the same effect, and it is a notorious fact that the use of these substances by women to make their skins soft and pliable also makes them hairy. That which favors the growth in still more marked degree is the use of preparations which produce stimulation and irritation. The use of such agents

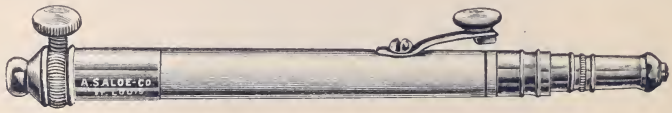

FIG. 4. Pifford's Epilating Forceps.

will provoke a growth of hair in localities where, under other circumstances, it would never occur. It is for this reason that care should be exercised in the use of counter-irritants and epispastics, so as not to possibly evoke such an unpleasant growth. I have seen a patch of hair called into existence by this means on the chest of a young girl between the mammæ; and, another one had a growth brought on over the ramus of the jaw of one side. Cutting the hair at frequent intervals will not only promote its growth, but will also tend to make it coarser. Cutting the vibrissæ of the nostrils and of the ears, and treating the eyelashes and eyebrows in the same manner, will not only make them stiff and wiry, but unduly prominent as well.

The diagnosis of this condition need not be touched upon, as it is never difficult to establish. Almost any one can make it at first glance. It is rather a deformity than a disease, and is, in the majority of instances, due to some perverted process or to a heterotopy.

The important question which suggests itself, and it is that which chiefly interests the patient, is how to accomplish the removal of the superabundant growth of hair. If it can be positively determined that it is due to a nervous disturbance, then it is certainly best to treat the cause by general measures before local treatment is attempted. Many cases have

[2] *Alienist and Neurologist*, October, 1887.

been cured by this means alone. But the majority need local measures, and in this respect there are two methods—the palliative and the radical. Under the former are included the various depilatories which only destroy the hair just above the surface of the skin and by their stimulating effect increase its growth. Among the most efficient of these remedies are the following:

℞ Barii sulphid ..... ℥ij
Pulv. zinci oxidi
Pulv. talc Venet ..... aa ℥iij
M.

℞ Sodii sulphid ..... ℥ij
Pulv. zinci oxidi
Cretæ preparatæ ..... aa ℥iij
M.

Either one is made into a paste with water and applied for ten or fifteen minutes. As soon as the skin feels hot it is scraped off with a dull knife and a soothing ointment is applied. These preparations should always be used with caution, as a very severe dermatitis may supervene. Sulphide of arsenic, quicklime, and sulphide of calcium are among the agents which are employed as the active ingredients in various depilatories which are placed on the market.

The most simple palliative measure is that which is the most inefficient, and consists in ordinary epilation, generally done with very clumsily constructed tweezers. If this method is going to be adopted, it is best to

FIG. 5. Electric Needle Holder.

at least use a good instrument, and the best one for this purpose is shown in Figure 4. It can grasp the finest lanugo hair and never loses its grip.

So far as the radical cure is concerned, there are several methods of more or less doubtful value. One of these methods is to apply freely ethylate of sodium, which is claimed will destroy the hair completely. It should be freely applied and thoroughly well rubbed in over all the implicated surface; a dressing of cold cream then follows. It is a very painful process, and must be done under the influence of a general anesthetic, and under the best conditions thin scars are very apt to follow its use. Another method which was in vogue in former years consisted in the extraction of the hairs to be destroyed. A needle whose point had been dipped in fused caustic potassa or in chromic acid was then twirled in the empty follicle. The inflammation provoked by this method subsided in a few days; but small scars almost invariably followed, and only the coarser hairs could be treated in this manner. The most radical, but painful, method devised up to the present is the destruction by electrolysis. A fine irido-platinum needle is placed in a suitable holder, as shown in Figure 5. This is connected with the negative pole of a galvanic battery having a current from four and half to five milliamperes. The positive pole is connected with a wet sponge electrode which as held in the patient's hand.

The needle is carefully passed along the hair into the follicle until its point reaches the papilla. The current is then turned on by simply pressing the switch. In a short time a frothing takes place at the opening of the follicle. Slight traction is made upon the hair with a pair of forceps, and if it comes out easily the operation is complete. The current is then interrupted and the needle withdrawn. In this manner a number of hairs are treated at one sitting. A small inflammatory areola appears at the opening of the follicle, but subsides in a few days. Scars may result if the walls of the follicle have been punctured, but by using care no untoward after-effects are produced.

The method is a tedious one, a number of the hairs recur and there is an increase of the lanugo hairs surrounding the field of operation caused by the electric stimulation.

HISTORICAL SKETCH.

CELEBRATED ARABIAN PHYSICIANS.

By JAMES MOORES BALL, M. D., of St. Louis, Missouri.

THE first Arabian medical writer of whom we have any account was **Ahrun**, a priest of the city of Alexandria, who was a contemporary of Paulus Aegineta and wrote a work entitled *Pandects of Medicine*. This treatise, which consisted of thirty books and formed a complete system of medicine, has been lost; but many of the statements contained in it are to be found in the writings of Rhazes and Hali-Abbas, whose works exist. Ahrun's book is said to have been written in Syriac and to have been translated into Arabic by a Jew of Bassora named Maserjawaih.

The Bachtishua Family was celebrated in the annals of Arabian medicine. They were Nestorians and lived between the years 750 and 1050. All were famous translators, being the first to render Greek medical works into Arabic. George Bachtishua was body-physician to the Caliph, Al-Mansúr; his son served Haroun Al Raschid, and other members of this medical family were physicians to other Caliphs.

Jahiah-Ebn-Masawaih, or Mesue, as he is usually called, was a celebrated physician who belonged to the sect of Nestorians. The Caliph, Haroun Al Raschid, called him to Bagdad and chose him for the instructor of his son Almamoun and directed this learned physician to make translations of Greek philosophical and medical works. Mesue attributed the cause of variola to a fermentation of the blood; and was the first to direct attention to the injurious effect of drastic cathartics, which he replaced with mild laxatives, such as cassia, senna, tamarinds and myrobalan. When, in the year 813, Almamoun came to the throne, Mesue was loaded with honors. This sovereign collected learned men from all countries, formed them into a college and appointed Mesue for their president. On his father com-

plaining that so distinguished an honor had been conferred upon a Christian, Almamoun replied: "I have made choice of Mesue, not as a teacher of religion, but as an able preceptor in useful sciences and arts; and my father well knows that the most learned men, and the most skillful artists, in his dominions, are Jews and Christians." Mesue is said by his biographer, Abulphargius, to have held conferences in his own house, where he gave instruction in the mysteries of the healing art. This physician must not be confounded with another of the same name.

It was in the ninth century that **Hhonain-Ebn-Ishak**, a pupil of the celebrated Mesue, made many translations of Greek medical writings into Arabic. Born at Hartha, Hhonain studied at Bagdad and Alexandria, and, when his education was completed, was called to the court of the Caliph. His greatest service was in translating, and in this respect he was better qualified than any other person, since he was familiar with both the Greek and Arabic languages. He always assured himself that no words were omitted, and that he had made no mistakes in rendering the author's meaning. All later historians testify that he was the best translator of his time. He made translations of the works of Galen, Hippocrates, Aristotle, Ptolemy the astronomer, Paulus Aegineta, and Alexander of Aphrodisias.[1] During his lifetime several physicians were living at the court of the Caliph, where they were engaged in literary work under his direction. He has been called "the Erasmus of the Arabic Renaissance." Hhonain labored for forty years, and for every book translated he was paid, literally, its weight in gold. He received from the school at Bagdad what already was inaugurated in the schools of the Nestorians, viz., the academical degree of Rabbi, or Master.[2] He died in the year 874.

Serapion, the Elder, who is not to be confounded with another Saracenic physician of the same name, was a Syrian, born at Damascus, and flourished in the first portion of the ninth century. His work, entitled, according to the fancy of translators, "*Aggregator*," "*Breviarum*," or "*Therapeuticæ Methodus*," was written originally in Syriac; its object was to present a complete *résumé* of Grecian and Arabian medical learning. Like most works of the time, this treatise was a compilation made up, for the most part, of extracts from the writings of Galen; but it contains a few original observations which are worthy of note. Among these are his descriptions of a form of cephalalgia, in which the patient feels as if his head were cleaved in twain. This distressing malady was curable by the use of the finest oil of roses, obtained from Persia. Phthisis, according to this author, is caused by weakness of the lungs; while jaundice is due to organic change in the spleen. For the cure of diarrhœa, he directs the physician to prescribe the use of boiled milk, into which a piece of iron has been dipped. Serapion first described an eruptive disease, called by him echra, which name was after corrupted into essera. This affection would seem to be identical with nettle-rash.

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[1] Wuesteufeld: Geschichte der Arabischen Aerzte und Naturforscher, Goettingen, 1840.

[2] Simeon, son of Hillel, who succeeded his father as president of the Sanhedrim about the time of the birth of Christ, was the first Jewish rabbi. The title was conferred with great ceremony. When a person had gone through the schools and was thought worthy of the degree of rabbi, he was first placed in a chair, a little raised above the company; then were delivered to him a key as a symbol of the power and authority conferred upon him to teach others, and a table book as a symbol of diligence in his studies. The key he afterwards wore as a badge of honor, and when he died it was buried with him. The custom of giving the title of rabbi to learned men passed from the Nestorians to the Arabs, from whom, in time, the rite was appropriated by the Europeans.

Alkhendi.—In the same century there lived a man who certainly was one of the most versatile of writers and the most celebrated literary character of his time. Born of a noble family, Jacob-Ebn-Ishak Alkhendi familiarized himself with philosophy, mathematics, medicine and astrology. Possessing a knowledge of the Greek, Persian and Arabic languages, he was called, on account of his varied attainments, the subtle philosopher, the learned physician, and the Greek astrologer. Among the two hundred volumes comprising his works are translations of Ptolemy and of Aristotle. He was the first to apply the rules of geometrical proportion and of musical harmony to explain the action of remedies and to regulate their doses. This idea, however mistaken and ridiculous it may seem, was not entirely discountenanced until long after the Revival of Letters.

RHAZES. 860-932.

The physician who was the pride of the Saracenic school, and the only one whose writings are worthy to be read at the present day, was Abú Becr Mohammed Ibn Zacariyá Ar-Razi, commonly called Rhazes. By common consent, the first employment of chemical preparations in the treatment of disease is attributed to him, and not to Avicenna, as Le Clerc alleges. That the science of chemistry had reached a high degree of cultivation among the Arabs cannot be doubted. In the work of Rhazes such substances as corrosive sublimate, various preparations of arsenic, the sulphates of copper and iron, saltpetre and borax are all mentioned; and it is here that we find glass retorts, luting, and distillation first spoken of. He gives directions for the making of *Oleum Benedictum*, or *Oleum Philosophorum*, which is to be made in a glass retort, and heated by degrees until a red oil comes off by distillation. This is the first mention made by the ancients of true distillation, decoctions, of course, having been known previously.

A Persian by birth, Rhazes was a universal genius, versed in music, astronomy, mathematics, chemistry and medicine. At least, this claim is made for him by the Arab historians, who are naturally inclined to the marvelous. It is certain, however, that Rhazes traveled in many countries in pursuit of knowledge. Returning in his thirtieth year, he was chosen from one hundred competitors to fill the position of hospital physician, and soon became the most celebrated professor in the medical school of Bagdad. Rhazes was a voluminous author, and many of his books on philosophy, history, chemistry, and medicine have been lost, or are buried in the depths of some library. From his pen we have five treatises on medicine, viz.: the *Almansor* or *liber ad Al Mansorem*, which was dedicated to the Caliph, Al-Mansúr; the *Continens*, in ten books; the *Divisio Morborum;* the *De Variolis et Morbillis;* and an entire work on diseases of children, the first treatise written on this subject by the ancients.

The medical works of Rhazes were held in high repute. The ninth book of the *Almansor* was so highly prized that it was read publicly in the mediæval schools of medicine, and for many years was commented upon by the most learned professors. In the thirteenth century, Charles of

Anjon sent an embassy to the King of Tunis, expressly to secure the *Continens*, so valuable was it considered at that time.

It was during the reign of Al-Mansûr that Rhazes passed the best years of his life. This enlightened sovereign, on succeeding to the throne in 813, continued the liberal policy of his royal father, Haroun Al Raschid, collected vast numbers of Greek and Roman manuscripts, and employed competent scholars to translate them into Arabic. Among these works were the treatises of Galen, Hippocrates, Oribasius, Aetius, and Paulus Aegineta. It was from these books that Rhazes drew the bulk of his information, although he mentions many facts not recorded by his predecessors. The writings of Rhazes, in the Arabic text, are to be found in MS. in the libraries of Madrid, Dresden, the Bodlean at Oxford, and the Nanian at Venice. Gerhard of Cremona translated them into Latin, and they have been published in many editions between the years 1481 and 1787. *De Varolis et Morbillis*, translated from the original Arabic into English by Wm. Alex. Greenhill, was published in London in 1848. A translation of the same work was published in England in 1702, in the works of Dr. Meade.

The study of anatomy by dissection was forbidden by the Koran, consequently little anatomical progress could be made. Nevertheless, Rhazes first mentioned the infra-trochlear branch of the nasal nerve; first described the great pneumogastric, and distinguished the superior laryngeal from the recurrent. Rhazes knew that the course of the last named nerve is different on the two sides; and that the recurrent is sometimes double on the right side, a discovery which has been unjustly credited to Wrisberg in modern times. In speaking of the operation for fistula lachrymalis, he warns the surgeon against wounding the external or anterior branch of the ophthalmic nerve—a branch mentioned by none of the Greek writers, and in modern days particularly pointed out by Willis.[1]

Like others of the ancients, Rhazes fell into the error that the human embryo possesses a true urachus for evacuation of the urine; and believed he could foretell the number of children a woman would bear, from the number of wrinkles in her abdomen at the time of the first confinement.[2]

That Rhazes was a safe and honorable practitioner of medicine is evident from the following advice upon the choice of a physician, which is taken from the *Almansor:*

"Study carefully the antecedents of the man to whose care you propose confiding all you have most dear in the world; that is to say, your health, your life, and the health and lives of your wife and children. If the man is dissipating his time in frivolous pleasures; if he cultivates with too much zeal the arts that are foreign to his profession, such as music and poetry; still more, if he is addicted to wine and debauchery, refrain from committing into such hands a trust so precious. He merits your confidence who, having early applied himself to the study of medicine, has sought skillful instruction and seen much of disease; who has united to the assiduous reading of good authors his personal observations; for it is impossible to see everything and try everything in one's own practice; and the knowledge and experience of a single individual, compared to the knowledge and skill of all men in all ages, is like a slender brook of water that flows by the side of a great river."

[1] Moir: Outlines of Ancient History of Medicine, p. 217.
[2] Lessing: Geschichte der Medizin, Berlin, 1838, p. 212.

That which has rendered the name of Rhazes celebrated in the annals of medicine is his knowledge of small-pox and measles. The "*Treatise on Small-Pox and Measles*" has passed through many editions, between the years 1498 and 1848, and has been printed in Latin, French, English, German and Arabic. Two MSS. of the Arabic text are in existence: one in Leyden, the other in Venice. It was from the former that the celebrated Dr. Meade, physician to George II., made the first Latin translation. The preface of Rhazes' work is so curious that I will transcribe it as found in the writings of Dr. Meade (London, 1762):

"In the name of God, merciful and gracious: Abu-Beker Mohammed, the son of Zacharias, saith thus:

"On a certain night, at a meeting in the house of a nobleman of great goodness and virtue, and very fond of the explanation of useful sciences, that they might be made plain and intelligible for the publick benefit, the conversation having turned on the Small-Pox, I then spoke what came into my mind on that subject. Which, when that great man (whom may God long preserve for the good of mankind) had heard, he desired that I should write a discourse on that disease with sufficient aptness, solidity, and clearness; because there had never yet been published, either by the ancients or moderns, a satisfactory account of it. I therefore composed this treatise, hoping to receive my reward from the almighty and glorious God, as the effect of his good will."

After this pious preface, Rhazes divides his treatise into fourteen chapters, and gives a lucid account of the symptoms and treatment of small-pox and measles. Following are some extracts from this work:

FROM CHAP. I.:—"The moderns have, it is true, proposed some medicines for the cure of the Small-Pox, but not distinctly and clearly enough; neither has any one of them explained the cause of it, and why, except here and there one, nobody escapes it; nor shewed the methods of cure in a right order. Upon which account, I hope the good man, who encouraged me to undertake this work, will have his recompence; and that my reward will be doubled, when I shall have described whatever is necessary to the cure of this disease in due method, assigning to everything its proper place; by the help of God."

CHAPTER III. COMPLETE:—"The eruption of Small-Pox is preceded by a continual fever, a pain in the back, itching in the nose, and terrors in sleep. These are the proper signs of the approaching Small-Pox, especially the pain in the back, with a fever; and also a pricking, which the patient feels all over his body; together with a fulness and redness of the face, which at times goes and comes; a redness of the eyes, a heaviness of the whole body; frequent yawnings; a pain in the throat and breast, with a difficulty in breathing, and streightness in the gullet; then a dryness of the mouth, thick spittle, a hoarseness of the voice; headache, anxiety of mind, inquietude; sick qualms and heaviness of heart, oppress more in the Measles than in the Small-Pox, unless the Small-Pox be of a bad sort; for the Measles are from a very bilious blood. And, on the other hand, the pain in the back, the heat and inflammation of the whole body, especially in the throat, with a shining redness, are more proper to the Small-Pox than to the Measles.

"Wherefore, upon the appearance of these signs, or some of the worst of them, you may be assured, that one or the other of these diseases is nigh at hand.

"As to the safer kind of Small-Pox; in these, the quantity of blood is greater than its bad quality; and hence arises the pain of the back; the greater blood-vessels, which are situated near the vertebræ of the back, being distended with too great a quantity of blood."

FROM CHAP. VII.:—"As soon as ever the signs of Small-Pox appear, particular care must be taken of the eyes, the throat, the nose, and ears, and also of the limbs, in the way I am going to describe. Nay; sometimes it will be necessary to extend our care even to the soles of the feet, and the palms of the hands, for oftentimes violent pains arise in these parts, the hardness of the skin hindering the eruption.

"Upon the first appearance of the signs, drop rose-water into the eyes now and then; also wash the face with cold water often in a day, and sprinkle the eyes with the same. For if the disease be mild, this method will prevent the pustules breaking out in them. This, indeed, is to be done, for greater caution; for in the mild sort, it seldom happens, that any pustules break out on the eyes. But in a bad sort, when you see a large eruption in the beginning, with an itching of the eye-lids, and redness of the white of the eyes, some places of which are redder than others; you may be assured that the Small-Pox will break out there, unless great help be given; therefore immediately drop rose-water in which sumack has been infused, into the eyes, several times a day.

"It will be still more effectual to apply a collyrium, made of galls in rose-water, by dropping it into the eyes; or to instil into the eyes what is squeezed from the pulp and the skins of the sour pomegranate, first chewed. Then wash the eye-lids with a collyrium, made of the water of quinces, the juice of unripe grapes, boxthorn, aloe, and acacia: of each of these let there be one part, and a tenth part of saffron; and drop some of it into the eyes."

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"As to the pustules which break out in the tunica cornea of the eye, these darken the sight, and are to be cured, according to the degree of their thickness, by such dissolving remedies, as I am going to describe: which indeed are sometimes effectual, and sometimes not; the success depending upon the matter being more or less thick, and upon the greater or less firmness and dryness of the body.

"But if large pustules show themselves in the tunica uvea, use the collyrium of rose-water several times in the day and night, with great diligence; or else that before-mentioned, leaving out the saffron; instead of which, put in a small quantity of blood-stone, to keep down the swelling."

The extracts given above are from the medical works of Dr. Meade (London, 1762).

In his writings Rhazes asserts that variola was known to Galen. It must be stated, however, that none of the moderns have succeeded in finding anything resembling an account of this disease in the Galenic writings, and it is probable, as Meryon remarks, that Rhazes, who was unable to read Greek, did not obtain his information from correct sources. Rhazes must be regarded as the first author who has described small-pox and measles.

In the *Almansor*, Rhazes gives an interesting account of the charlatans of his day. He says:

"Of Impostors" (*Liber ad Almansor*, vii., 27):—"There are so many little arts used by mountebanks and pretenders to physic, that an entire treatise, had I a mind to write one, would not contain them; but their impudence and daring boldness is equal to the guilt and inward conviction that they have of tormenting, and putting persons to pain in their last hours, and all for no reason. Now some of them profess to cure the falling-sickness, and thereupon make an issue in the hinder part of the head, in the form of a cross, and pretend to take something out of the opening, which they held all the while in their hands. Others give out that they can draw snakes and lizards out of their patients' noses, which they seem to perform by putting up a pointed iron probe, with which they wound the nostril until the blood comes; then they draw out the little artificial animal which is composed of liver. Some are confident they can take out the white specks in the eye. Before they apply the instrument to the part, they put a piece of fine rag into the eye, and, taking it out with the instrument, pretend that it is drawn immediately from the eye. Some, again, undertake to suck water out of the ear, which they fill with a tube from their mouth, and hold the other end to the ear; and so, spurting the water out of their mouths, pretend that it came from the ear. Others pretend to get out worms which grow in the ear or the roots of the teeth. Others can extract frogs from the under part of the tongue, and, by lancing, make an incision into which they clap the frog, and so take it out. What shall I say of bones inserted into

wounds and ulcers, which, after remaining there for some time, they take out again? Some, when they have taken out a stone from the bladder, persuade their patients that still there is another left: they do this for this reason, to have it believed that they have taken out another. Sometimes they probe the bladder, being altogether ignorant and uncertain whether there be a stone or no; but if they do not find it, they pretend at least to take out one they have in readiness before, and show that to them. Some say they take phlegm, of a substance like unto glass, out of the different parts of the body, by the conveyance of a pipe which they hold, with water in their mouths. Some pretend that they can contract and collect all the floating humors of the body into one place by rubbing it with winter cherries, and then they expect to be rewarded as if they cured the distemper, and after they have supplied the place with oil, the pain presently goes off. Some make their patients believe they have swallowed glass, so taking a feather, which they force down the throat, they throw them into a vomiting, which brings up the stuff they themselves had put in with that very feather. Many things of this nature do they get out, which these impostors with great dexterity have put in, tending many times to the endangering of the health of their patients, and often ending in the death of them. Such counterfeits could not pass with discerning men; but that they did not dream of any fallacies, and make no doubt of the skill of those whom they employed; till at last, when they suspect, or rather look more narrowly into their operations, the cheat is discovered. Therefore, no wise men ought to trust their lives in their hands, nor take any more of their medicines, which have proved fatal to so many."

Although Rhazes well understood the practices of charlatans, yet he was himself a firm believer in astrology. The aphorisms of Rhazes, modeled after those of Hippocrates, are much inferior to them. Unmindful of the modesty of true worth, he boasts of his discoveries and heralds his skill in prognosis. "In a strain of oriental magniloquence, he runs over the same topic again and again, imperfectly states some commonplace facts, and confesses his predilection for astrology" (Moir). Some of the wise sayings of Rhazes are the following:[1]

"If Galen and Aristotle are of one and the same opinion, it is certainly correct; but if they differ, it is very difficult to determine which is in the right."

"Truth in medicine is an aim which is not easily gained; and the healing art, as it is set forth in books, is far inferior to the practical experience of a skillful and thoughtful physician."

"The febrile diseases are more fatal than the frigid ones, because of the rapidity with which heat spreads."

"Treat an incipient malady with remedies which will not prostrate the strength."

"When you can cure by regimen, avoid having recourse to medicine; and when you can effect a cure by means of a simple medicine, avoid employing a compound one."

"With a learned physician and an obedient patient, sickness soon disappears."

The surgical knowledge of Rhazes was obtained *en bloc* from Paulus Aegineta, Antyllus, and Archigenes. The numerous grave operations described by those authors are repeated by Rhazes. On the whole, the surgery of the Arabs was merely a compilation from the works of the Greek authors.

In his old age Rhazes was a victim to cataract. When one of his friends asked him to submit to an operation, that he might recover his

[1] Wuestenfeld: Gesch. d. Arab. Aerzte, pp. 41-42.

sight, he said: "No, for I have seen so much of the world that I am tired of it." Probably his reply would have been different had not the surgeon who was summoned to operate been ignorant of the anatomy of the eye.

HALI-ABBAS.

Hali-Abbas, a Persian by birth, was born in the year 944. He wrote a compendium of medicine, in twenty books, under the title *El-Maliki* or "*Opus Regium.*" This work, which was compiled from the writings of Rhazes and of the Greek physicians, was the standard medical authority of the Saracens until the time of Avicenna. As regards literary merit, it is regarded as the best production of the Saracenic school. Hali-Abbas was a strenuous advocate of the use of mineral waters for the cure of disease. His practical directions regarding diet are worthy of notice, and, considering the time in which he lived, are creditable to him. In the treatment of disease he differs but little from Rhazes.

AVICENNA.

In the same year of the publication of the *El-Maliki* of Hali-Abbas (A. D. 980), there was born at Bokhara, a city of Khorassan, a child known to us by the name of Avicenna, and surnamed by the Arabians "The Prince of Physicians." He was possessed of a wonderful memory, and by his tenth year could repeat the whole of the *Koran.* Educated by celebrated Nestorian teachers and conversant with all branches of learning, Avicenna in his eighteenth year was so skillful in the healing art that he was called by the Emir, Nouk Ibn-Mansûr, to be his physician. As was usual among the learned men of Bagdad, Avicenna united the study of philosophy with the practice of medicine; and he soon acquired such a degree of reputation that the Caliph consulted him with respect to his son, in a case which perplexed the physicians of the court. His prescription succeeded, and the success obtained him admission to the court and access to the library of the prince. Here he pursued his studies with great industry, but, at the same time, with a fanatical spirit scarcely consistent with sound judgment. When perplexed with any logical question, he was wont to repair to a mosque and pour out prayers for divine illumination; after which he fancied that the information which he had sought was communicated to him during sleep. For a time Avicenna was a great favorite at the court, but suddenly fell into disgrace, was sent to prison and kept incarcerated for two years. He died in 1036, at the age of fifty-six. He was one of those geniuses who consume themselves. His exuberance of spirits, the wild, inward fermentation of his mind, threatened to destroy him. He found repose only in drunkenness and debauchery, and died a victim to Bacchus.

In materia medica, Avicenna possessed some absurd ideas, for I find him recommending the administration of gold, silver and precious stones, with a view to purify the blood. It is to this ridiculous belief that the custom of gilding and silvering pills is to be ascribed. (Crichton: *Arabia*, Vol. II., p. 84. New York, 1834.)

Galen, Rhazes, and Hali-Abbas were his favorite medical authors. The numerous works of Avicenna unite, with choice language, an inordinate desire for compiling; and in him Asiatic prolixity is joined with a philosophical spirit lost in the speculations of alchemy and astrology. His principal work, constituting a complete system of medicine, is called the *Canon*, or *Liber Canonis Medicinæ*. For six centuries this classic work was the medical code of Europe and Asia, "the *Koran* of the healing art," and it exercised an influence over physicians which was surpassed only by the writings of Galen. The *Canon* consists of five books, of which the first treats of anatomy and physiology; the second of remedies; the third of diseases; the fourth of fevers, and the fifth of the theories of medicine. It supplanted the works of Rhazes and Hali-Abbas, and until the end of the fifteenth century it held, in the estimation of physicians, the rank of an oracle. Only the completeness of the work of Avicenna could secure for him such despotic sway. It was possible only at a time of darkness—an age when men avoided thinking for themselves; when experimentation with a view to the discovery of new truths was not known, and when the few learned men of whom the age could boast sought to obtain all kinds of knowledge from the writings of the ancients. Although it has been claimed by some writers that Avicenna was ignorant of botany, yet he must have possessed some knowledge of that science, as the name *Abutylon Avicennæ* attests.

The most complete treatises of the one hundred or more written by Avicenna are on diseases and materia medica. His surgical writings were less complete and were taken largely from the books of Hippocrates, Galen, Paulus Aegineta, and Rhazes. Avicenna was a great advocate of the actual cautery. In trichiasis he burned the roots of the hairs with a red-hot needle; he advised the removal of scrofulous glands and tumors by incision, and directs that the arteries severed shall be ligated. Cancer of the breast was treated by corrosive applications, the actual cautery or the scalpel. The operation of lithotomy is mentioned by Avicenna. If the stone is large the incision is not to be made correspondingly large, but the calculus is to be seized in a forceps and crushed. The bladder is to be washed out. Hydrocele is to be treated by incision and the application of strong medicines or the cautery to the membranes. Many other operations were described by this old Arab.

Greek and Roman medical writers do not mention the obstetrical forceps. With the exception of Celsus, their knowledge of midwifery was extremely limited. The practice of midwifery was confined to women. Probably they were familiar with the use of the forceps, for a similar instrument was unearthed in the ruins of the house of a Roman obstetrix in the excavations at Pompeii. The first known reference to the forceps is that found in Avicenna.

He distinctly mentions the use of the forceps for the delivery of living children in cases of difficult labor, and makes it more evident by directing that in case the midwife fails with the forceps she must then resort to embryotomy, as in the case of a dead child: "Cap. 26. De Regimine ejus cujus partus sit difficilis causâ magnitudinis fœtus—Oportet obstetrix bona faciat retentio hujis modi fœtus: quare subtiliter in extractione ejus paulatim; tunc si valeat illud in eo, bene est; et si non liget eum cum margine

Illustration from the Title-page of the "Liber Canonis" of Avicenna (Papiae, 1510).

Liber I

¶ Capitulum primum Fen prime Doctrine prime libri primi de diffinitione medicine.

Dico q medicina est sciētia q̄ humani corporis dispositiones noscunt ex parte qua sanat vel ab ea remouet vt habita sanitas ꝓseruet ⁊ amissa recuperet.

¶ Diuersimode pt diuidi liber deinceps sz leui sic posito phemio hic exequit ⁊ hz ptes qnqz sic qnqz sunt libri. Prim liber hz duas partes. In prima premittit que sunt necessaria ad scientiā principiorz vniuersaliū theorice ⁊ practice. Scdo exequt. ibi secunda (ela) Illa duo sunt diffinitio sciētie medicine vt sciam qd est scia: scdm est que sunt subiecta de quib cōsiderat. ibi scda (qm) Pria in duas. primo ponit diffinitionē. secūdo mouet instātias circa illam. secūda ibi (pōt aūt) Dicit Guilielmus de Baxia medicia

Liber II

Gētilis fulginatis sup scdo can. Aui. expositio.

¶ Incipit liber canonis secūdus Auicē. verba principis Aboali.

Orū librorz quos d medicia specificauim: Prim ē de iudicijs vlibus i medicina. Et scds eorū est hic liber aggregatus de medicinis singlarib. Et nos quidē hūc librz in duos diuisimus tractat. Quorū prim ē de canonib vlibus quos te scire oz in re medicinarz: ⁊ ē sciētia virtutu medicinarz in medicina. Et scds eorz ē de cognitōe virtutū medicinarū in particulariū.

Initial Letters and Text from the "Liber Canonis Avicennæ," 1510.

panni, et trahat cum subtiliter attractione post attractionem. Quod si illud non conferet, administrentur forcipes, et extrahatur cumilis. Si viro non confert illud, extrahatur cum incisione, secundum quod facile sit, ut vegatur regimine fœtus mortui.''[1]

A century later Albucasis, the greatest of the Arab surgeons, described two forceps: the long forceps, or *Almisdach*, and the short forceps, or *Misdach;* but these instruments evidently were not intended for the extraction of living children, for they were provided with teeth.

Alhazen.—Although not a physician, Alhazen made observations which entitle him to remembrance. He was a mathematician of the eleventh century, and was the first great discoverer in optics following Ptolemy. The latter knew of atmospheric refraction and must have known of dioptrics, although he nowhere explains the subject. The ancients were familiar with plane mirrors, and with the use of glass spheres filled with water and employed as burning and magnifying glasses. Alhazen's optical views, although often erroneous, were sounder than those of his predecessors. He asserted that refraction takes place towards the perpendicular and that the angles of refraction do not follow the proportion of the angles of incidence. He taught, before Vitello, that vision does not result from the emission of light from the eye. In addition to informing us in regard to the reflection and refraction of light, Alhazen gives a description of the eye, mentioning three humours—*aqueus*, *crystallinus* and *vitreus*—and four coats: *tunica adherens*, *cornea*, *uvea*, *tunica reti similis*.

[1] Avicennæ Medicorum Arabum Principis, Libres Canonis de Medicinis, Cordialibus et Cantica jam olim quidem a Gerand Caumonensi ex Arabico Sermone in Latinum Conversa et pautia vero ab Andrea Alpago infinites penecorrectionibus, ev, P. 724, Benlae, 1556.

Iowa State Medical Society.—The preliminary announcement has been issued. The next meeting will be held in Des Moines, May 18, 19 and 20, 1898. The officers are: President—Dr. Edward Hornibrook, Cherokee; First Vice-President—Dr. H. Landis Getz, Marshalltown; Second Vice-President—Dr. James R. Guthrie, Dubuque; Secretary—Dr. James W. Cokenower, Des Moines; Assistant Secretary—Dr. M. Nelson Voldeng, Des Moines; Treasurer—Dr. George R. Skinner, Cedar Rapids.

The Chairmen of Sections are: Practice of Medicine—Dr. Henry E. W. Barnes, Creston; Surgery—Dr. James A. Sherman, Cherokee; Obst. and Gynæ—Dr. Charles E. Ruth, Keokuk; Materia Medica—Dr. Benton H. Criley, Dallas Center; State Medicine—Dr. Alonzo W. Cantwell, Davenport; Nerve Diseases—Dr. Henry A. Gillman, Mt. Pleasant; Ophthalmology and Otology—Dr. Wm. B. Small, Waterloo.

Progressive Philadelphians.—Attention is called to the advertisement of Messrs. Chesterman & Streeter, of 25 South Eleventh street, Philadelphia, who are successors to Messrs. I. B. Seeley & Co. Messrs. Chesterman & Streeter deal in hard rubber trusses, supporters and pile pipes. They are reliable and progressive, and, like several other Eastern firms, appreciate the importance of advertising in THE JOURNAL.

FORMULAE.

Gout.—Dr. V. W. Gayle, of Kansas City, says, in *Langdale's Lancet*, that he has used the following formula for a number of years with considerable success:

℞ Tinct. stramonii ..... ʒ j
Tinct. colchicum-seed ..... ʒ iss
Tinct. guaiacum. ..... ʒ ij
Sig.—Teaspoonful in milk three times a day.—*Dominion Med. Mon.*

Typhoid Fever.—Bouchard prescribes:

℞ Pulv. carbo. ligni ..... ʒ iij
Iodoformi ..... gr. xv
Naphthalini ..... gr. 75
Glycerini ..... ℥ vj
Beef peptone ..... ℥ iss
M. Sig.—A teaspoonful every two hours in one-third glass of water.—*North Amer. Prac.*

Cancer of the Stomach.—To increase the appetite:

℞ Bark of white condurango 15
Aq 250

Reduce by boiling to one hundred and fifty grams, filter, and add syrup. A soupspoonful is to be taken a quarter of an hour before meals. To favor digestion:

℞ Mur. of ammonia ..... ctgrm. 0.15
Bicarb. of soda ..... ctgrm. 0.26
Dover's powder 0.10

To be taken ten minutes before meals. To diminish fermentation: Sublimated, washed, or precipitated sulphur, fifteen to twenty centigrams.—*Robin, Jour. de Med. de Paris.*

Migraine.

℞ Antipyrin ..... gr. 7.5
Phenacetine ..... gr. 7.5
Acetanilide ..... gr. 0.75

For one cachet. The caution is added that it will be prudent not to take more than three cachets in twenty-four hours at first.—*Practical Medicine.*

Eczema in Children.

℞ Creosoti ..... gtt. xx
Aq. catcis ....
Ol. olivæ, aa ʒ ij .....
M. Sig.—Apply several times daily.—*Duenges, Centralb. f. Kinder.*

Solution for Painless Extraction of Teeth.

℞ Hydroch. cocaine ..... gr. iij
Hydroch. morph. ..... gr. ¼
Chloride sodium ..... gr. iv
Antipyrin ..... gr. xxx
Guaiacol ..... gtt. ij
Distilled and sterilized water, a sufficient quantity to make ʒ iijss.
M. Sig.—Inject a few drops around the tooth.—*Ex.*

Spasmodic Cough.

℞ Pot. bromid ..... ʒ j
Vin. ipecac ....
Tinct. belladon ..... aa ʒ iss
Syr. tolu ..... ℥ vj
Aq. ..... ad ℥ iv
M. Sig.—One to two tablespoonfuls every three hours.—*The Practitioner.*

Acute Cystitis.

The following is recommended by Professor Horwitz:

℞ Belladon. succi ..... gtt. xx.
Sodii boratis ..... ʒ ij.
Acid. benzoic ..... gr. xx.
Tr. opii camph ..... ʒ iss.
Ol. gaulther ..... gtt. xij.
Syr. simplicis ..... ℥ ij.
Aq. dest ..... ℥ iv.
M. Sig.—ʒ ij in water four times a day.—*Medical Council.*

Headaches.

℞ Antipyrine ..... gr. viij
Sparteine sulphate ..... gr. 0.3
Caffeine citrate ..... gr. ij

Mixed and placed in a capsule will arrest the most stubborn attack of headache in a short time. These capsules may be repeated every half hour if necessary.—*Louisville Medical Monthly.*

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Issued Monthly for One Dollar a Year.

EDITORIAL DEPARTMENT.

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THE CITY HOSPITAL MEDICAL SOCIETY.

We take pleasure in calling the attention of the profession to the excellent work done during 1897 by the City Hospital Medical Society of St. Louis. The society now has 116 members—all fitted by special hospital experience for the scientific practice of medicine. Meetings are held every fortnight. The discussions are of great value, but unfortunately are not published, since the society does not employ a stenographer. Following is a record of the papers read during 1897:

Dr. L. Bremer, "A Demonstration of an Original Method of Diagnosticating Diabetic Blood and Urine." Dr. A. H. Meisenbach, "A Specimen of Double Uterus and Vagina." Dr. B. Bribach, "Empyema in Children." Dr. Given Campbell, "Practical Deductions from Recent Bacteriological Research." Dr. I. N. Love, "The Deadly Cocaine." Dr. David Nowlin, "A Case of Compound Fracture of the Humerus." Dr. John McH. Dean, "A Case of Ataxic Paraplegia." Dr. P. V. Von Phul, "A Case of Transposition of Viscera." Dr. E. S. Smith, "A Case of Multiple Cardiac Lesions." Dr. H. C. Dalton, "Strangulated Hernia, with Resection of the Intestine." Dr. Frank R. Fry, "Cyclone Neuroses." Dr. I. N. Love, "Some Points on La Grippe." Dr. T. C. Witherspoon, "Concerning Some Secretions." Dr. W. N. Beggs, "An Object in Aero-Therapeutics." Dr. Geo. Homan, "The Value of Public Health and the Duty

of the Government in the Prevention of Disease." Dr. Henry Jacobson, "Serious Complications Following Gonorrhœa." Dr. A. F. Henke, "A Case of Multiple Sclerosis." Dr. T. C. Witherspoon, "Vicarious Functions." Dr. J. B. Shapleigh, "Practical Deductions from Aural Symptoms." Dr. E. S. Smith, "Two Cases of Thoracic Aneurism." Dr. Chas. H. Dixon, "A Case of Echinococcus of the Liver." Dr. E. S. Smith, "A Case of Transposition of Viscera." Dr. Frank R. Fry, "A Specimen of Tumor of the Cerebellum." Dr. Frank R. Fry, "Pressure Symptoms Following Head Injuries." Dr. Geo. Homan, "A Note on the Methods and Results in the Medical Inspection of School Children in Boston." Dr. E. S. Smith, "A Case of Leukæmia." Dr. Jos. Grindon, "A Case of Ichthyosis." Dr. Chas. H. Dixon, "Choledocystotomy."

THE ST. LOUIS LARYNGOLOGICAL AND OTOLOGICAL SOCIETY.

Three-fourths of the throat, nose and ear specialists of St. Louis met, pursuant to a call, December 27th, and organized the St. Louis Laryngological and Otological Society. Dr. J. C. Mulhall was elected President; Dr. J. B. Shapleigh, Vice-President; and Dr. F. M. Rumbold, Secretary. The society will meet the second Wednesday in each month, and will hold its next meeting in the Century Building. This is a move in the right direction. St. Louis is a metropolitan city of nearly a million inhabitants, and numbers among her specialists some of the ablest and most accomplished men in America. Her laryngologists and otologists, several of them, have international reputations. We have wondered how it happens that patients living in closer proximity to St. Louis pass it by and consult the profession in Chicago and New York. The explanation is to be found in the enchantment of distance and the fact that the profession of our sister cities keep their lamps trimmed and burning; they do not "hide their light under a bushel." What the Laryngological and Otological section of the New York Academy of Medicine is to the laryngologists and otologists of New York, the St. Louis Laryngological and Otological Society will doubtless be to the throat and ear specialists of St. Louis. The proceedings of the former are read wherever rational medicine is practiced, and those of the latter will be as widely published. We have faith enough in the members of this new society to feel sure that the quality of their work will not be inferior to that of any similar body of workers in this country.

An interesting program was arranged for the first meeting, January 12th, to which practitioners in general were cordially invited.

F. C. E.

MAN'S INHERITED MARTYRDOM.

Doctor Warren B. Outten, of this city, a man who needs no introduction to the medical profession of the West, has written a book entitled, "Man's Inherited Martyrdom—A Fitful Study of Degeneration." It is a work of the greatest interest and deserves to meet with a cordial welcome. The author is eminently qualified to deal with the entire subject of degeneration, for his is a studious, judicial and comprehensive mind. The book is filled with profound truths expressed with elegance and presented in a pleasing manner. Suitable illustrations are being prepared for the work

which will be published in the JOURNAL as a serial. The first chapter will appear in our March issue, and one chapter every month thereafter for more than a year.

THE ST. LOUIS ACADEMY.

The Academy is growing satisfactorily. Its programs are of interest and a feeling of fraternity exists that is absent in some other medical bodies. Doctor A. Winter Hitt, of Chicago, recently addressed the Academy on the subject of leprosy. His lecture was illustrated by stereopticon views. Among those recently elected to membership are Doctors J. C. Murphy and H. G. Gould. Seven other gentlemen have been proposed for membership and are preparing their credentials in the form of theses. We will venture the prediction that the Academy will prove a potent factor in the betterment of the local profession.

HOSPITAL GUARANTEE ASSOCIATION, OF ST. LOUIS, MO.

We present herewith the circular issued by a company whose name appears above. The incorporators and officers are laymen. We do not wish at this time to make any comments on the scheme. We hope it will not injure the profession. We ask a careful reading of the following prospectus:

"PROTECTION THAT PROTECTS.

"The Hospital Guarantee Association, of St. Louis, Mo., guarantees protection to the toiler in the shape of hospital care and the services of experienced physicians, surgeons and nurses during sickness or accident, which may be your lot at any moment and which comes when not expected or when you can least afford it. Like death, it makes no distinction in person.

"The payment of one dollar per month, in advance, entitles one to become a member of this association and receive all benefits thereto attached, upon these conditions, to-wit:

"A person desiring to become a member of this association must be a white male or female between the ages of fourteen and fifty-five, of good moral habits, sound in health of body as well as of mind, and accepted by the board of directors.

"This association agrees, in consideration of the above requirements being complied with, to furnish to members of the association competent and able physicians, surgeons, nurses and attendants, including all necessary medicine required or recommended by the attending physician.

"The association moreover agrees, in addition to medical and surgical advice and attention, to provide its members with bed, board and educated, trained nurses at any hospital to which the patient may be sent through the direction of the secretary of said association.

"In addition hereto the association agrees to pay to any member of the association $5.00 per week, not exceeding thirteen weeks, while confined to his or her bed.

"If a member does not care to be sent to a hospital, by notifying the secretary the secretary will furnish the physician decided upon (generally the usual medical attendant of the member), and all necessary medicine ordered or recommended by said physician at the home of a member; the

secretary will issue a certificate to said physician guaranteeing the bill and relieving the member of all liability of paying for said attention.

"If a member is desirous of being sent to a hospital, by notifying the secretary said member will be sent for and taken to the hospital decided upon.

"A member who is desirous of all benefits above mentioned, except the $5.00 weekly benefit, will be required to pay but fifty cents per month.

"A grace of seven days will be allowed in the payment of all subsequent dues. During said seven days' grace a member's certificate remains in force.

"This association is as much in the interest of physicians as of patients, inasmuch as it insures prompt payment for services rendered at the usual rates of the fee bill, instead of long-deferred pay at a discount. In all instances the usual medical attendant (the family doctor) will be employed unless there exists some special reason for the selection of another—such as, for example, cases requiring a particular kind of operation, when some specialist of known skill may be selected."

Pheno-Bromate.—We wish to call attention to the new chemical preparation, pheno-bromate.

This product has the combined effect of controlling pain, reducing the temperature, stimulating the heart and inducing sleep. There are no contra-indications to its use. It can be used with perfect safety in all forms of disease where there is pain, wakefulness, cardiac depression, fever, nervous irritability, and symptoms arising from such, where other coal-tar preparations are now so largely used. It is the only preparation which will control the above mentioned symptoms and not be followed by depression.

It has been used with the most happy results in controlling the pain and restlessness in pleurisy, pneumonia, la grippe, and in fact all acute or chronic diseases where an agent of this class is indicated.

In neuralgia of the head and face, for pain during the menstrual period of young girls, this preparation affords prompt and speedy relief.

As a hypnotic, pheno-bromate is very satisfactory; twenty grains will, in a short time, produce a quiet, refreshing sleep, from which the patient awakens with no unpleasant after-effects whatever.

As a febrifuge, small doses of five to ten grains, given at intervals of three to four hours, will control the fever and keep the patient quiet.

As an antispasmodic it is a valuable remedy, a single dose of twenty or twenty-five grains given during the hour preceding an attack of grand mal will frequently abort the attack.

As an antineuralgic, pheno-bromate has a wide and useful field; for headaches of all kinds; pains in the eyes and facial neuralgia, there is no remedy which affords prompter and surer relief.

As a cardiac stimulant it ranks with caffein, strychnia, and similar drugs.

Pheno-bromate is a white powder, but slightly soluble in water, has a somewhat saline, not unpleasant taste; can be given in tablets, capsules, wafers, or dry upon the tongue.

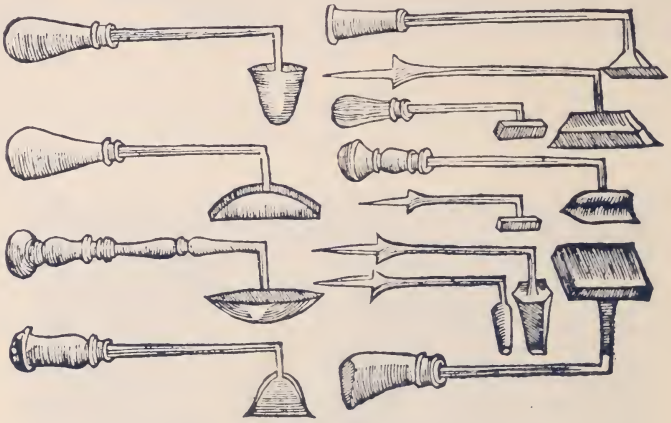
Paget's Life of Pare.—Stephen Paget, of London, has recently written the life of Ambroise Paré in a manner that commands admiration.

AMBROISE PARE, AT 75.

From a Print by Horbeck. From an Engraving in the Print-Room, British Museum. (Courtesy of Messrs. G. P. Putnam's Sons, New York).

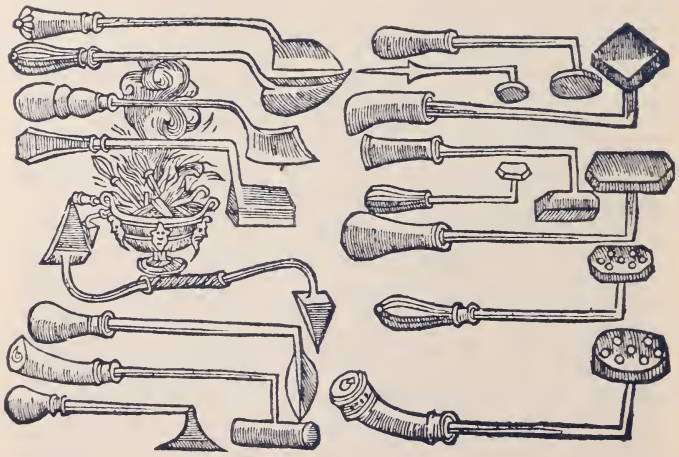
The book has been reprinted in this country by the Putnams. The volume is elaborately illustrated with reproductions of old engravings, some of which are very rare.

We are glad that this book has appeared, for, to our mind, the publication of such works shows that the time will soon come when our medical students will receive instruction in the history of medicine. This is a subject which has been sadly neglected in America. There is entirely too



Various Cauteries. From Paré's Works. (Courtesy of Messrs. G. P. Putnam's Sons, New York).

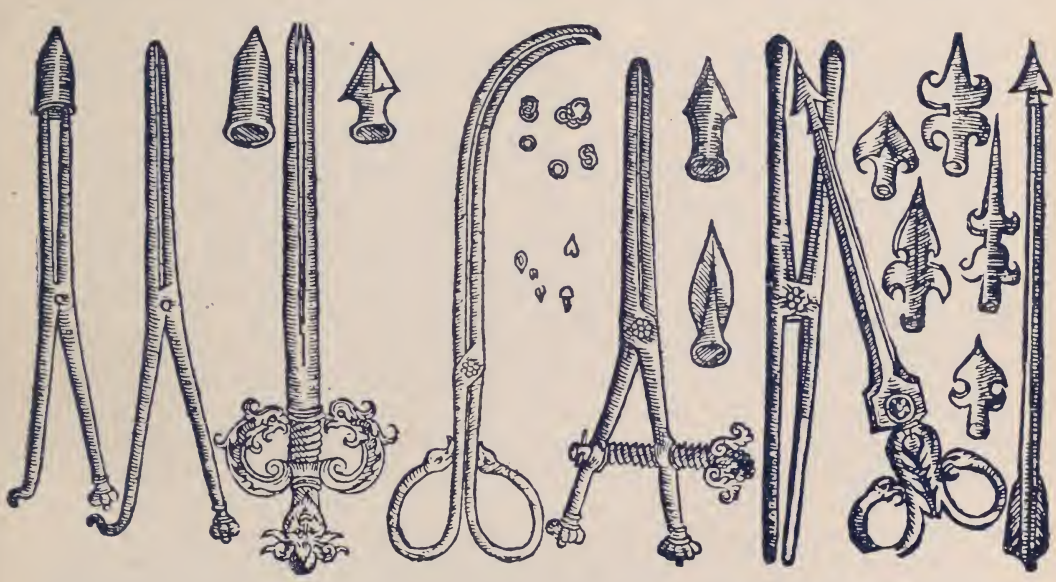
much ignorance of what has been done in past ages. A long time ago ohnson said: "The mental disease of the present day" (and the observaion is unquestionably more applicable now than when it was first made), "is impatience of study, contempt of the great masters of ancient wisdom, and a disposition to rely wholly on unassisted genius and natural sagacity.



Various Cauteries and a Brazier. From Paré's Works (Courtesy of Messrs. G. P. Putnam's Sons, New York).

If no use is to be made of the labors of past ages, the world must remain always in the infancy of knowledge. The discoveries of every man must terminate in his own advantage, and the studies of every age be employed on questions which the past generation had discussed and determined."

Paré lived in stirring times. The author says: "In the year of his birth, 1510, Louis XII. was King of France, Maximilian was Emperor, Henry VIII. was King of England. During his life the crown of France passed from Louis XII. to François I., then to Henri II., then to his three sons in successsion, François II., Charles IX. and Henri III., and then to Henri IV. In England, Edward VI. succeeded to his father's throne, then Mary, then Elizabeth. The empire passed from Maximilian to Charles V., and afterwards to Philip of Spain." * * * "When Luther burned the Pope's bull, and Raphael died at Rome, and the kings of France and England met on the Field of the Cloth of Gold, Ambroise was a boy ten years old; at the death of Bayard, fourteen; at the fall of Wolsey, twenty; when Calais was taken from England he was forty-eight; and, following the fortunes of war, he served against the English in Brittany in 1543, at Boulogne in 1545, and at Havre in 1563—



Instruments for Extracting Arrow-Heads or Links of Chain-Armor. From Paré's Works. (Courtesy of Messrs. G. P. Putnam'sSons, New York).

perhaps the only army surgeon who has twice seen discretion outweigh valor with English soldiers." * * * "Among his cotemporaries were Ignatius Loyola and Saint Theresa, Luther and Erasmus, Calvin and Knox, Shakespeare and Rabelais, Raphael and Titian, Paracelsus, Servetus, Sylvius and Vesalius. He followed the wars, off and on, for thirty-two years; he practiced in Paris for more than half a century, and was surgeon to four kings; and even against the times he kept his hands clean, and his heart full of sympathy. He has been called the John Baptist of surgery, in the sense that he prepared the way for surgeons after him; but it would be hard to find a worse mistake than this. He never dreamed of modern surgery; he made no final change in the principles of his art; he only cared to practice it. Yet he has a right to the name, for he stood for the truth at the court of more than one Herod, and ever looked to see the deliverance of his country."

Spinal Caries.—(Spondylitis, or Potts' Disease of the Spinal Column.) By NOBLE SMITH, F. R. C. S., Ed.; L. R. C. P., Lond.; Surgeon to the Orthopædic Hospital; Surgeon to All Saints' Children's Hospital; Orthopædic Surgeon to the British Home for Incurables. Second Edition. Octavo, pp. vi.–153. London: Smith, Elder & Co., 15 Waterloo Place, 1897.

This is a sensible book, written by a practical man. It contains all of value that is now known about spinal caries. In this edition the author has supplied an index, described a new form of head-piece for cervical disease, and added some remarks about forced reduction of the deformity under chloroform. The author encouragingly says: "I may add, that since I wrote the first edition I have met with the further confirmation of the conclusion that spinal caries is generally a curable disease, but that success depends, above all things, upon accurate support of the spine." The price of the book is 5s.

The Right Side of the Car.—By the author of "Etidorpha" (JOHN URI LLOYD). Octavo, pp. 59. Boston: Richard G. Badger & Company, 1897. Price, $1.00.

Many physicians have made excursions into the enticing field of general literature, and some have there built enduring monuments; others have been heard of no more; and a few have attained immortality. What will be the verdict of future generations as regards the author of this book would be a hazardous guess; but it certainly seems to us that the name of Dr. Lloyd will be remembered alongside that of Goldsmith, Smollett, Akenside, and Holmes, all of whom were physicians.

"The Right Side of the Car" is a charming little story of the Northern Pacific Railway. It is a pathetic tale—one that will bring tears to many an eye. There are two characters: a man of middle age and a young lady. Back of the living reality of the man and the woman is one of America's grandest objects, Mount Tacoma. The story must be read to be appreciated.

A Clinical Text-Book of Surgical Diagnosis and Treatment.—By J. W. MACDONALD, M. D., Graduate of Medicine of the University of Edinburgh; Licentiate of the Royal College of Surgeons of Edinburgh; Professor of the Practice of Surgery and of Clinical Surgery in Hamline University, Minneapolis, Minnesota. Octavo volume of 800 pages, handsomely Illustrated with 328 Engravings. Prices: Cloth, $5.00 net; Half Morocco, $6.00 net.

The author says: "The rapid advances made in the art of surgery have caused the literature of the science to grow apace. Systems of surgery in many volumes, and text-books of large dimensions, are now deemed necessary to cover the field. The practical part of the surgeon's work is, however, almost limited to two questions, which he must answer every time his professional advice or help is sought. The first question is, 'What is the disease or injury?' The second question is, 'What is the proper treatment?'

"While I would not for a moment underestimate the importance of a profound study of the principles of surgery, of surgical pathology, or of bacteriology, the present work will be confined to a solution of the two

questions just mentioned, with the view of putting into the hands of students and practitioners a single volume containing the most practical part of practical surgery."

Outlines of Rural Hygiene.—For Physicians, Students, and Sanitarians. By HARVEY B. BASHORE, M. D., Inspector for the State Board of Health of Pennsylvania. With an Appendix on The Normal Distribution of Chlorine by PROF. HERBERT E. SMITH, of Yale University. Illustrated with Twenty (20) Engravings. 5½ x 8 inches. Pages vi.–84. Extra Cloth, 75 cents net. The F. A. Davis Co., Publishers, 1914–16 Cherry street, Philadelphia; 117 W. Forty-second street, New York City; 9 Lakeside Building, 218–220 S. Clark street, Chicago, Illinois.

The various chapters of this book deal with water-supply, waste disposal, the soil, habitations, and disposal of the dead. For an elementary work it is unusually useful.

Elements of Latin.—For Students of Medicine and Pharmacy. By GEORGE D. CROTHERS, A. M., M. D., Teacher of Latin and Greek in the St. Joseph (Mo.) High School; Formerly Professor of Latin and Greek in the University of Omaha; and HIRAM H. BICE, A. M., Instructor in Latin and Greek in the Boys' High School of New York City. 5¼ x 7½ inches. Pages xii.–242. Flexible Cloth, $1.25 net. The F. A. Davis Co., Publishers, 1914–16 Cherry street, Philadelphia; 117 W. Forty-second street, New York City; 9 Lakeside Building, 218–220 S. Clark street, Chicago, Illinois.

As long as many medical students are ill-prepared to begin the study of any profession, there must be need for works of this class. The work is valuable and is one of the best of its class.

The Peritoneum.—By BYRON ROBINSON, B. S., M. D., of Chicago. Part I.: Histology and Physiology. With 247 Illustrations. Octavo, pp. viii.–406; with 103 additional pages of Bibliography. Chicago: C. V. Waite & Co., 70 State street, 1897. Price, $3.75.

One of our Department Editors has set for himself a task which might discourage a giant, but the work goes bravely on. Dr. Robinson has been working for many years to produce a complete and systematic treatise upon the histology, anatomy, physiology, pathology and surgery of the peritoneum—that closed sac which has of late disclosed so many of its long-hidden secrets. The present volume opens with a historic sketch in which the labors of ancient, mediæval and modern anatomists are duly chronicled. The histology and physiology of the peritoneum is then taken up and comprises the rest of the volume except the appendix. The greatness of Dr. Robinson's work cannot be appreciated without a perusal of the book. One would scarcely believe that so much is known about the peritoneum. The style is clear, the treatment of the subject comprehensive, and the book is destined to remain a classic. The illustrations have been well cut and add greatly to the value of the book. The bibliography, occupying 103 pages in double column, is not the least important part of the volume. We trust Dr. Robinson will be financially rewarded for his great labor.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections, in Photo-Lithochromes from Models in the Museum of the Saint Louis Hospital, Paris. With Explanatory Wood-cuts and Text, by ERNEST BESNIER, Physician to the Saint Louis Hospital, etc.; TENNESON, Physician to the Saint Louis Hospital; HALLOPEAU, Member of the Academy of Medicine, etc.; FOURNIER, Professor of the Faculty of Medicine, etc., and DU CASTEL, Physician to the Saint Louis Hospital. With the Co-operation of HENRI FEULARD, Curator of the Museum, and LEON JACQUET, Secretary of the Dermatological Society of France. Edited and annotated by J. J. PRINGLE, M. B., F. R. C. P., Assistant Physician to and Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. Parts IX. and X.; pp. 195 to 244. London: F. J. Rebman. Philadelphia: W. B. Saunders, 1897. St. Louis: The W. T. Keener Co., 404 North Eighth street. Price, $3.00 per part.

We are once more called upon to indulge in the pleasure of reviewing this magistral work. Part IX. opens with Plate 33, a most excellent representation of squamous eczema of the hand, the text being by Lucien Jacquet. The author calls it herotodermic eczema, it being the eczema squamosum et fissum of the Vienna School. The picture is most excellent and the rhagades are shown with life-like accuracy of form and color. Plate 34, representing Pustular Scabies, is a most instructive one, as it furnishes an example of a disease which is far from being common in this country, except in certain localities. The text, by the late Henri Feulard, is full of suggestion and contains much valuable information in regard to the proper treatment. A case of Lupus Pernis affecting the nose at different periods of a number of years, and Scrofulous Dactylitis form the subjects of Plate 35. These cases occurred in the service of Ernest Besnier, and the former deserves more than ordinary notice, both on account of the difficulty of noting a proper diagnosis and of the comparative rarity of the trouble. It is the so-called "chilblain lupus" of British authors. Plate 36 represents a more than ordinarily interesting case of Gummatous Tuberculous Lymphangitis, secondary to Tuberculous Dactylitis. Georges Thibirge writes quite a lengthy account of the case, which is more than ordinarily interesting. The condition is far from being a common one, for, as Dr. Pringle says, but one such case has been reported in the English language, and this was in the *British Journal of Dermatology*. The plate before us is simply exquisite in execution and so well made that once seen a similar case could be recognized at once without difficulty. It certainly deserves to be numbered with the best plates in this more than superior collection of dermatological pictures.

Part X. opens with a good plate of Miliary Syphilides of the buttocks. The writer of the text, Alfred Fournier, is inclined to call the eruption polymorphous, as he finds lichenoid, miliary, papulo-granular, and herpetiform syphilides in the case. The lesions, taken altogether, are representative of what has been called, for brevity's sake, the five papular syphilides. To our mind, the plate represents the lesions as a shade too bright in color, the red being rather of an inflammatory tinge than that peculiar shade so characteristic of syphilis. A most excellent picture is that of Paget's disease of the nipple, given in Plate 38. The picture has an

added interest, from the fact that it is made from a model made by Barretta on the first case recognized in France, Vidal having made the diagnosis. The text is written by J. Darier, and he still maintains his original position that the trouble is essentially a psoro-spermosis of the skin before the epitheliomatous process sets in. Wickham and others have supported this contention, although many are inclined to differ from them on this point. Trophic Ulcers of the hand and fore-arm are admirably represented in Plate 39, and their very rarity makes the picture the more valuable. As Lucien Jacquet says, this rarity is perhaps more apparent than real. We have seen some cases of the trouble and can attest to the truthfulness of the representation which is given in the picture. Chancres of the Breast and Face are delineated in a life-like manner in Plate 40. The ordinary chancre of the breast and an ulcerating chancre of the breast are faithfully delineated, that of the face being also very excellent. The text, by Alfred Fournier, is most excellent, and he improves the opportunity of pointing out the interesting features which are connected with extra-genital chancres. This is the conclusion of Part X.

Taken as a whole, the Atlas of the Saint Louis Hospital has kept up its high standard throughout each part, and we only regret that it will be but all too soon completed. OHMANN-DUMESNIL.

The Treatment of Disease by Electric Currents.—By S. H. MONELL, M. D., author of "Manual of Static Electricity;" Founder and Chief Instructor of the Brooklyn Post-Graduate School of Clinical Electro-Therapeutics and Roentgen Photography; Fellow of the New York Academy of Medicine. Octavo, pp. 1100. New York: William Beverley Harison, 3 and 5 West Eighteenth Street. Price, $8.00.

In "The Treatment of Disease by Electric Currents," the author presents a working hand-book of plain instructions for the general practitioner. He clears away many of the perplexities of the subject and concentrates into a few pages the essential facts of the physics and physiology of galvanic, faradic, and static currents. Thereafter every page of the book is practical therapeutics. Detailed directions are given for the selection of current, choice of poles, application of electrodes, regulation of dose, duration and frequency of treatment, and the most helpful clinical particulars throughout.

The text has been prepared to serve as the basis for the author's clinical teaching, and every chapter is a clinic in itself.

The author presents every essential scientific fact in plain language that can be understood, and no work upon electro-therapeutics has hitherto appeared in which directions for treatment have been so explicitly given. The great strength of the work is its complete representation of the practical therapeutic uses of all three great medical currents in the office practice of the physician. The section devoted to gynæcology is exceedingly valuable and complete.

Genito-urinary affections in the male are also considered at length. Nervous and chronic diseases are treated with great detail. No attempt is made to exhaust the entire capabilities of electricity, but in every case in which it possesses practical clinical value its uses are described so that it can be employed by the reader as the author directs.

The volume is unique in many respects and is marked throughout with the author's well-known practical ideas of treatment. The book is devoted to treatment and the means of making treatment successful. It is a book that physicians have long desired, and is the first work upon the subject which presents in a single volume the special and comparative merits of all forms of medical currents. To the practitioner who seeks to inform himself of therapeutic development for consultation purposes or for personal use of electrical apparatus, this volume is practically indispensable.

A Contribution to the Literature of Epidemic Influenza.—During the winter of 1889–1890, when the influenza epidemic raged in Europe, many physicians thought they had encountered a new disease, as influenza had almost been forgotten, for the last visitation of an epidemic dated back some sixty years (1830 to 1833).

Influenza is an acute infectious disease, which remains latent in unknown regions for many years, only to make its appearance epidemically—yes, even at times endemically—throughout a country or a whole continent. The evidences of these epidemics can be traced back to the twelfth century (A. Hirsch). They do not disappear as quickly as they come, and only after numerous smaller or larger outbursts do they pass away entirely. Even now we hear of characteristic clinically-observed cases.

Climate and season seem to bear but little weight on the spread of this disease, although it has been noticed that the epidemics seldom occur in summer. As soon as an epidemic makes its appearance, the larger part of the population, without regard to sex, age or social standing, contract the disease; the healthy and sick, the strong and weak, all are likewise attacked.

The treatment is mostly symptomatic. I give in the beginning, as in all infectious diseases, a laxative, preferably calomel, in doses of 2 to 5 grains for adults (one-tenth the amount for children). The calomel is divided into three powders, given at intervals of one hour. As long as the fever lasts, rest and a fever diet are indicated. Formerly I employed internally, and given three to four times daily: quinine, 3 grs.; antifebrin, 4 grs.; antipyrin, 10–15 grs.; sodium salicylate, 10–15 grs.

Since 1890, however, I use almost exclusively salipyrin, not only in influenza, but also in ordinary catarrhal affections, rheumatism and neuralgia. I prescribe as an evening dose 15 grs. (seldom 20 to 30 grs.); mornings generally one-half that amount, although at times I do give 10 to 15 grs. For children, one-tenth to one-half the above-mentioned doses, according to age. I never noticed any unpleasant after-effects from its use, and I was never compelled to resort to larger doses than those I have already mentioned. With this remedy I have obtained, without a doubt, the best results, which now and then were almost phenomenal in character. I noticed, as has also v. Mosengeil, that salipyrin must be continued for some time in order to achieve a good result. I prescribe 10 grs. at night, for three to five days after the fever has disappeared.

Even after the fever has fallen to the normal, the patient should be confined to his room for a number of days. The eventual complications are to be treated by the usual accepted methods of therapeutics.

DR. ALADAR BÉKÉSS, *Vienna.*

ABSTRACTS.

Eucaine "B."—F. C. Wallis, M. B., F. R. C. S., in an article entitled "Eucaine as a Local Anæsthetic When Used Hypodermically," published in *St. Bartholomew's Hospital Journal*, August, 1897, states that, having used eucaine B for some months past in St. Mark's and Charing Cross Hospital in nine removals of tumors, forty-four rectal operations, and two abdominal operations, the results of his experience with eucaine are most satisfactory. He has used a solution of four per cent., and he has never seen any signs of toxic effects even when a considerable amount has been used. This percentage he found quite strong enough to produce absolute local anæsthesia for any small operation. He has, in a large ischiorectal abscess, injected as much as three and one-half to four drachms subcutaneously without any ill effects at all. The average amount required for a small operation was from one to one and one-half drachms of the four per cent. solution. One of the great boons this drug possesses is that the operator need not be at all nervous about using sufficient; and if the desired anæsthetic effect is not produced by one drachm, the second or third can be used with every confidence as to the safety of it. He frequently used it in the out-patient room for abscesses, and found it most useful, both in hospital and private work, for removing the redundant skin which is sometimes left after operations for hæmorrhoids. He has no after-effects to record, and concludes that eucaine has a great deal to recommend it.

In *The British Medical Journal* of November 27, 1897, Drs. W. Jobson Horne and Macleod Yearsley described their experience with eucaine A, which they have employed in one hundred cases of diseases of the ear, nose and throat. They found that the pulse was not materially affected, in either rate or character, and they have not met with a case in which the drug *per se* influenced the cardiac action.

It has been stated that eucaine induces hyperæmia and on this account the drug is inferior to cocaine, which produces an ischæmia so serviceable in investigating diseases of the nose. Upon the application of a five or ten per cent. solution of eucaine to the mucous membrane, hyperæmia will occur as an immediate result; this is, in the majority of cases, but an initial blush, rapidly passes off, and gives place to an ischæmia, which, as seen in the nose, is generally less marked than that produced by cocaine. Upon a further application there is no recurrence of hyperæmia, and the ischæmia may be increased. In no case have we met with excessive or unexpected hemorrhage following operations done under eucaine anæsthesia,

such as is not uncommonly met with after the use of cocaine. This is no doubt accounted for by the action of eucaine upon the peripheral vessels already alluded to.

As regards the disturbances of sensation following the anæsthetic action of the drug, more particularly in the case of the pharynx, these are not only less unpleasant and less marked than those produced by cocaine, but more transient, and, speaking generally, after the lapse of an hour from the time of application, the subjective sensations may be described as normal. Those who have experienced the effects of both drugs have expressed a decided preference for eucaine.

In concluding, the writers say:

"Were eucaine to be of no further service than to act as an efficient substitute in cases such as we have mentioned, in which an idiosyncrasy for cocaine precluded an operation, even then this new local anæsthetic could not be regarded otherwise than of importance.

"So far in our experience with eucaine we have not met with a case in which a single symptom supervened in the least way suggestive of a toxic effect of the drug."

We quote the following from *The American Journal of the Medical Sciences*, Philadelphia, December, 1897:

"EUCAINE B IN STOMATOLOGY.—Drs. Dumont and A. Legrand make use of a one per cent. solution sterilized by boiling. They report seven observations, concluding that it is a good local anæsthetic, producing anæsthesia as rapidly as does cocaine, but which persists for a shorter period (about three times less), and that its feeble toxicity permits its safe employment in dental surgery, even when practiced upon children.—*Bulletin General de Therapeutique*, 1897, 18e, liv. p. 545."

Hydrotherapy a Subject for Clinical Teaching.—The House of Parliament, Vienna, has taken up the subject of establishing a recognized educational clinic for the purpose of elucidating hydrotherapy. The purpose of the bill has so far succeeded in establishing this proposition, that the representatives resolved, a few months ago, to appoint a special commission to inquire into the necessity and propriety of establishing such a school of education, and named Professor Albert as the chairman of the commission. It discussed the various advantages and disadvantages of the treatment, stating that lectures are already given in Italian and German schools, while two of the Austrian medical faculties (Vienna and Innsbruck) provide ample instruction for this special treatment. Different doctrines of pathology and therapy are advanced in the elucidation of hydrotherapy that necessitate its connection with the present clinic.—*Journal American Medical Association.*

This is only another proof of the importance hydrotherapy is obtaining in scientific medicine. America is not behind in the application of this department of medicine. It has long been practiced, together with massage, mechanical and manual Swedish movements, at the Alma Sanitarium, Alma, Mich. All classes of chronic organic and nervous diseases are given this advantage in addition to the regular medical treatment.

It is usually impracticable to practice hydrotherapeutics at home except to a limited extent. The cost of equipment by the patient and

physician is more than is desirable to expend. The greatest development of this specialty will be found in such institutions as the Alma, where particular attention is given to this treatment as prescribed by the attending physicians and administered by trained nurses.

Meeting of the Harveian Society of London, Held on October 21, 1897.—Dr. Clifford Beale read a paper on "Recent Experience of the Use of Large Doses of Creosote in Consumptive Cases."

Dr. Stamford G. Felce inquired whether Dr. Clifford Beale used creosote of any particular manufacture, as he had found the results vary greatly with different specimens of the drug, which, though occasionally well borne, was in a large percentage of cases not tolerated by the stomach. As commercial creosote is a more or less variable mixture, containing toxic cresols, paracresols, and pyrogallol, it seemed to him more rational to use a drug which, possessing equal efficiency, is of a definite chemical constitution—a condition that is fulfilled by guaiacol carbonate; in a fairly large series of phthisical patients he had found this drug well tolerated, and in suitable cases frequently beneficial. Dr. William Squire, Dr. Cleveland, and others, also took part in the debate.—*The Lancet*, October 30, 1897.

Treatment for Rheumatism and Allied Affections.—Dr. C. W. Canan, of Orkney Springs, Va., says: "For the past seven years I have constantly prescribed tongaline, and the longer I do so the more thoroughly I learn to rely upon its efficacy for the diseases for which it is indicated. I had always secured good results from its administration, but during the past year these have far surpassed all my expectations, especially in such serious and obstinate troubles as rheumatism, la grippe and sciatica. These really wonderful results I consider due to my methods of administering the preparation, and I believe it to be to the advantage of every physician to understand just what these methods are. For instance, when I have a very severe case of inflammatory rheumatism, a case where the swelling is great and the pain almost beyond endurance, together with a high temperature, I commence with a teaspoonful of tongaline every hour in a wineglassful of water just as hot as the patient can bear it. I follow the dose with as much hot water as the patient can take. In from four to eight hours the temperature is invariably reduced and the patient falls into a refreshing sleep. Under this treatment, within six hours I have seen the temperature drop from 104 degrees to 100 degrees and the pain disappear as if by magic. Furthermore, I have time and time again witnessed the same results in severe cases of la grippe. The more severe the case, whether of rheumatism, la grippe, gout, sciatica or lumbago, the more I push the tongaline by giving smaller doses at closer intervals and invariably in hot water in place of cold. In cases where the stomach rebels and tongaline cannot be administered in that way, I have the affected parts, say the inflamed joints in a case of rheumatism, or the lumbar region in that of lumbago, sponged with alcohol or soda water, in fact, I prefer the latter, then rubbed with tongaline and apply heat by a hot water bag, or by some other convenient method. It is really surprising how quickly and thoroughly the tongaline is absorbed and how effective its action when it is administered in that manner. In la grippe, when the stomach is very irritable, as is so often the case,

you will find that tongaline applied locally, say under the inner side of the thighs and under the arms on the side of the chest, will eradicate the trouble more quickly and thoroughly than any other remedial agent.

"I call to mind a case of subacute, localized rheumatism of the knee, which had defied every kind of treatment generally prescribed for that condition, such as the potassium salts, salicylate of soda, tonics, blisters and counter-irritants. I decided to try tongaline in the manner above described. By the third day the pain had almost disappeared, and the swelling had been reduced two-thirds at least. The improvement was uninterrupted, and in ten days the patient pronounced himself cured. It is certainly somewhat remarkable to see an old, chronic rheumatic patient, who has been bedridden for months, able to walk comfortably, as if by magic, due entirely to the effects of tongaline. On several occasions, when in the company of medical men and the subject of rheumatism was introduced, I have mentioned this treatment and stated that, in my blief, we had in tongaline almost as thorough a specific for rheumatic and neuralgic diseases as quinine was for malaria. Some of the physicians remarked that they had not found tongaline of so much value, whereupon I replied that the fault was in their manner of prescribing the preparation. I explained to them how tongaline must invariably be pushed to the extreme in certain obstinate cases, and always administered in hot water. Since then I have had the pleasure of hearing one of these physicians state that he is as firm a believer in the efficacy of tongaline for rheumatism as I am, and that the reason he had never appreciated the preparation so thoroughly was because he had never used it in sufficiently large quantities. In conclusion, I would state that if any reader of this article doubts the efficacy that I have ascribed to tongaline in the more severe forms of the diseases for which it is indicated, just let him push the drug until the full physiological symptoms are secured, and I feel assured that he will agree thoroughly with my statements."—*St. Louis Medical and Surgical Journal.*

Nurses Wanted.—The Woman's Hospital, Sixteenth and Pine streets, St. Louis, Mo., desires four young ladies, twenty-one years of age, to take up nursing; the same must be in possession of a diploma from some high school or university, also credentials from a reputable physician as voucher for her perfect state of health, and recommendations from some minister as to her Christian and moral standing in the vicinity in which she resides.

Anti-Rheumatic Plaques at Oak Lawn Retreat.—Dr. Frank Parsons Norbury, editor of the *Medical Fortnightly;* Medical Superintendent of Oak Lawn Retreat, Jacksonville, Ill.; formerly Professor of Mental and Nervous Diseases in the St. Louis College of Physicians and Surgeons, and Assistant Physician at the Central Illinois Insane Asylum, Jacksonville, Ill., writes the Howard Chemical Company, under date of December 11, 1897, as follows: * * * "The writer has great personal confidence in your preparation, using it both in private practice and at Oak Lawn Retreat, etc., etc., etc. (Signed.) FRANK P. NORBURY."

PUBLISHER'S DESK.

MERZ CAPSULES IN DEMAND.

KENT, OHIO, November 24, 1897.

THE MERZ CAPSULE CO., Detroit, Mich.:

Sirs:—What is your price on five hundred, also one thousand lot, capsules No. 17, Merz compound sandalwood in bulk, both hard and soft? I have been using your capsules, and find them superior to anything I have tried. Just ended a box of one hundred. I do not like to be ordering every week or so, so ask for above quotations.

Yours, DR. SCHILLING.

Recent clinical experience has demonstrated beyond doubt the fact that we have no better remedy for certain forms of syphilis, especially the so-called tertiary form, than the iodides. Henry's tri-iodides is especially adapted to that class of cases, its formula and composition preventing the disagreeable symptoms usually met with if potassium or sodium iod. are administered continuously for a lengthy period. The alterative power of the tri-iodides is so intense that amelioration takes place in but a few weeks.

Count Okuma's Wooden Leg—Ordered From New York, as No One in Japan Can Make One.—It is not often that the consular service of a country is called upon to secure a wooden leg for a general, but that is what has just happened in the case of General, the Count Okuma, the prime minister of Japan, says the *Commercial-Advertiser*.

The Japanese minister to the United States was instructed, weeks ago, to obtain the best artificial limb in this country for Count Okuma, and he turned the order over to the secretary of the legation, who instructed Consul-General Ucheida to consummate the negotiations. The latter gave an order to the firm of A. A. Marks, 701 Broadway, New York, for a limb that is to cost $100. It was shipped to Japan in two weeks.

This is the second wooden leg that the prime minister has purchased in this country, and the fact appears to be a refutation of the political "roorback" that Japan is interfering with our commerce and manufactures. In 1890 a Japanese fanatic, Hunekt Karushima, threw a bomb into the foreign office, where Count Okuma was at work, and he lost his right nether limb. A local cabinet-maker of high degree furnished him an artificial limb that was finely lacquered and inlaid with mother-of-pearl, but which had not the grace and comfort of the Yankee invention. So, when Count Okuma came to this country in 1894 he purchased a leg of American make, and left the other behind. Several months ago Count Okuma had his Yankee leg shattered in a runaway accident; the cabinet-maker was sent for again, and another lacquered and mother-of-pearl leg was furnished the prime minister until he could get a new leg from A. A. Marks, 5200 miles away. The count is to get it in about a month. This most excellent firm above is not only the oldest of importance in

America, but for many years their workmanship has been sought from Europe, Asia and Africa.—*The North American Medical Review*, October, 1897.

The kidneys are purely excretory organs. Through their action the blood is kept pure. If their function is suspended or imperfect, disease follows and calculi forms, cystitis and inflammation of the entire urinary is the result. This includes the prostate. To restore health the kidneys must be brought into faithful service. When this is done the whole train of morbid symptoms give way. Maizo-lithium will do this in the most effective manner.

Pills.—"If it's a pill made by William R. Warner & Co. it's soluble." There's only a few words in the above sentence, yet they are words which will impress all who read them. The theme is not a new one. The name "Warner" has long had the word "solubility" intimately associated with it. While we congratulate Messrs. Wm. R. Warner & Co. upon the perfect preparations bearing their name, we cannot but state we do not see why they should not be perfect. Forty-one years in business constitutes a period during which a progressive house should be able to give to the profession perfect preparations. The pills made thirty years ago and exhibited at the American Medical Convention, in Philadelphia, proved to be as perfect and soluble as the day they were made. The following is suggestive that Messrs. Wm. R. Warner & Co. have been very successful:

LIBERTY, OHIO, June 9, 1897.

Messrs. WM. R. WARNER & CO., Philadelphia.

Gentlemen:—Last winter I unearthed a small vial of your aloin granules that by chance had been stowed away for twelve years. Having always used your aloin granules in my practice, I of course used these, and, as far as I could determine, they were as efficient as the day they were made. I tried them on myself several times with results as good as could be wished for. I have kept a few as a curiosity. They are O. K.

Yours truly, J. H. ADAIR.

A HAPPY THOUGHT.

SEPTEMBER 25, 1897.

Messrs. JOHN CARLE & SONS, New York City.

Dear Sirs:—I have recently used the imperial granum with very gratifying results, being called in consultation, when death seemed imminent, to see a child that could retain nothing whatever on its stomach. I remembered my samples of imperial granum and ordered it tried at once, and it was retained. The child has not vomited since, the bowels are quiet, and the patient on the road to recovery. I have also recently used the imperial granum in a case of typhoid fever with equally satisfactory results. Yours very truly,

———————— M. D.

Physicians can obtain samples of this valuable prepared food free, charges prepaid, on application to John Carle & Sons, 153 Water street, New York City.

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CLINICAL LECTURE.

A CLINIC ON DISEASES OF CHILDREN.[1]

By AUGUSTUS CAILLÉ, M. D.,

Visiting Physician to the German Hospital; Attending Physician to the Post-Graduate Hospital; Consulting Physician, Isabella Home and Hospital.

GENTLEMEN:—I propose to-day to show you some interesting cases and then talk to you and give you some points on the subject of acute laryngeal stenosis, or croup.

CASE I. PHIMOSIS.—This was an ordinary case of phimosis, and the physician who attempted to treat the case did so by cutting off the outer layer of tissue at the seat of stricture, and not the inner layer, which, of course, leaves the child in about the same condition as he was previous to the operation. This shows the importance of doing a thorough operation. In the operation which will be done later in the wards, we will cut off all the cicatricial tissue and then proceed to a more thorough operation for its cure.

CASE II. ALOPECIA.—This is the result of a parasitic disease of the scalp occurring in a child who has been much neglected. Here is a case, two and a half years old, and not a single hair on its head. The parasite

[1] Held at the New York Post-Graduate Hospital on January 4, 1898, and reported expressly for the TRI-STATE MEDICAL JOURNAL AND PRACTITIONER.

in this case was probably the achorion Schonlienii, the parasite of favus; although this is a rather rare disease in this country, yet here in the city we see often a great many cases. This disease is far more destructive than tinea capitis, and not only tends to destroy the growth of the hair, but the hair follicle itself. In institutions it is an ugly disease to handle. This child has absolutely no hair on its head.

CASE III. FOREIGN BODY IN THE ESOPHAGUS.—Here is a girl who has swallowed a sharp bone of a rabbit. It is impossible for you to examine this child, on account of the great sensitiveness of the part; to examine her you must use chloroform. The bone has been in her esophagus for three days and there is, as the result of that length of time, a great amount of inflammation. This bone should have been taken out. It is evidently so painful that nothing can be done for her without the use of an anæsthetic. We will send her into the wards and attend to her later.

CASE IV. NEPHRITIS.—No doubt, many of my colleagues here recognize the swelling and almost characteristic appearance about the face. This child is twenty months of age. The history states that some weeks ago the child's extremities began to swell. This child has a nephritis, and the cause is unknown; it may have been from some infectious disease, but history does not show that to be so. The child is in great danger, because there is being passed but a very little water. He is being placed in the hot pack, strychnine and nitro-glycerine are being given in this case, and I think digitalis is indicated here. Upon examining the heart's action, I find that it is labored, but there are no signs of dilatation. There is swelling of the eyes, which is so intense that the tissues appear red. This is a case of nephritis with almost complete suppression of urine. He is getting the hot pack every hour.

CASE V. MITRAL SYSTOLIC MURMUR.—Boy, eight years of age, has had diphtheria. This boy comes here, gentlemen, with a loud murmur of the heart—a serious lesion of the mitral valve showing itself. It is a systolic murmur. Here the heart is much hypertrophied and extends two inches away from the nipple line, and it shows that it has existed a long time. The treatment of this child should be but little—send him out in the open air and let him enjoy himself there as much as he can.

CASE VI. ANÆMIC MURMUR.—This boy has an anæmic murmur, and is heard best when he holds his breath. This is an anæmic murmur and not a valvular lesion, as in the other case. With your stethoscope you can hear best over the pulmonary interspace. In the management of this, the boy, of course, needs iron and other tonic remedies.

CASE VII. MITRAL REGURGITANT MURMUR.—This is another case of a boy with a mitral regurgitant murmur, who gives a history of having had rheumatism. In this case the heart, too, is enlarged, and the history, as given, dates back two months. There is a mitral insufficiency which gives a marked systolic murmur. As yet he shows no signs of congestion of the lungs or liver. He is anæmic, too, and he needs iron. The endocardial inflammation is still going on in this case, and he needs absolute rest, which should be insisted upon, and he should be carefully guarded. The specific in these cases is salicylate of sodium in combination with iodide of potassium. The French and Germans claim that they can get rid of the inflammation by the combined use of these drugs kept up for a long time.

CASE VIII. OTITIS MEDIA, WITH ADENOIDS.—This is a child who had diphtheria six months ago and then became affected with a nasty running discharge from the ear. Behind the soft palate, the naso-pharynx, you can feel adenoids. If you attempt to stop the discharge without first removing the adenoids, you will fail to cure it. They must first come out. You should stop your powders of boracic acid and injections, and attend to the adenoids; then you can soon cure your otitis.

CASE IX. CAPILLARY BRONCHITIS.—Child, six months old, and is in great distress, as you can see from his breathing; notice the retraction which takes place on inspiration. The cough is partly croupy and partly asthmatic. There is great dyspnœa. The voice is clear and the obstruction is not, therefore, in the larynx; it is in the lungs. If you percuss here you get pulmonary resonance way down to the kidney region on both sides; this shows you that the lungs are in a bloated condition and they are acutely emphysematous; this is a case of capillary bronchitis, and is a very important condition in very young children. This child's condition is so severe that it will rapidly go under unless some powerful stimulants are used, such as camphor and benzoic acid; and these should be pushed for several days without interfering with the stomach. These cases are often looked upon as being simply cases of ordinary bronchitis, and the importance of them are not recognized, and many cases are lost; this should not be. In answer to the question of the doctor here, about the use of emetics, I will say that I am afraid of them in young children. In this case I would recommend the following:

℞ Pulv. camphor ..... gr. ss
Acid benzoic ..... gr. iij
Chocolate ..... gr. v
Sugar ..... gr. v
M. Et fiat pil. No. 1. Sig.—Give one four times a day.

If the stomach will not tolerate these doses and becomes irritable, stop this combination and give camphor in the shape of camphorated oil subcutaneously; it is better to combine with your camphorated oil one-half ether for hypodermic injection.

CASE X. CHRONIC ECZEMA.—Great success follows the proper handling of these cases in young children; and to demonstrate the way we do it, I will ask the nurse to apply the dressing before you. You notice that the child's hands are tied up in sheet-lint; this is very important, for it prevents the scratching and consequent irritation to the parts. The nurse first applies the following paste, known as Lassar's, to which has been added a certain amount of salicylic acid:

℞ Zinci oxidi ..... grs. clxxx
Acidi salicylici ..... grs. lx
Amyli ..... ℥ iv
Unguenti, vel petrolati ..... ℥ viij
M. Sig.—Apply to the parts.

The addition of the salicylic acid makes the zinc oxide more effective. The nurse next applies a mask made out of sheet-lint which fits the face; in it are cut openings for the eyes, nose and mouth. Then this is bound onto the child by means of bandages, which are afterwards sewn so that the child cannot remove the mask. This is a very effective way to

treat these cases. If patches are found in the hair, as in this case, then the hair all about the patch should be cut off. Another practical point in the treatment of these cases is that the bowels should be kept absolutely free in these cases of eczema. This bandage is left on four or five days and then renewed again. A cure is usually produced in about two weeks, and in some cases in one week.

CASE XI. SEPTIC DIPHTHERIA.—Here is a boy with evidently some obstruction in the naso-pharynx, from which trouble he has been sick two months; of course, this is not the history of diphtheria. This boy has diphtheria which has existed an uncertain length of time. The surface of the uvula is excoriated, and there are diphtheritic patches in the posterior pharynx. It is not a cheesy membrane, but patches of excoriation on the uvula, which I wish you to look at. Formerly in the treatment of these cases the mortality was 70 per cent. The management of diphtheria was rational, but very uncertain. There were many cases of diphtheria which appeared to be mild cases, and which frequently turned out to be septic, and so died. Since the introduction of antitoxin the mortality has fallen to about 5 per cent. As regards the diphtheritic croup, it has been reduced to about 20 per cent. Instead of there being a mortality of 70 per cent., it has been reduced to 20 per cent., and all this good is due to the antitoxin.

To-day I will speak of croup. One of the most alarming things that can occur in a family is croup. It alarms very much, and the physician is called for in a hurry. Ninety-nine cases out of a hundred cases of croup begin suddenly with a barky cough, some fever, flushed face and stridulous breathing, and this is usually a mild case of croup and gets well in twenty-four hours. In the treatment of these cases apply a cold towel to the neck and give internally:

℞ Vini ipecac.....
Tinct. opii camph.....
Spts. æther nitros ..... aa q. s.
M. Sig.—Give ten drops every hour. Give an enema, but no emetics.

Now another case of a child at school develops slight hoarseness, and at the end of four or five days the stenosis becomes urgent. This hoarseness and progressive slow stenosis, with low temperature, usually indicates membranous stenosis and offers an unfavorable prognosis. The pseudo-membrane may be diphtheritic, showing the presence of the Klebs-Löffler bacillus, or it may be non-diphtheritic; yet about 80 per cent. of these cases are shown to be true cases of diphtheria. It is wise in all these cases to isolate them, for the presumption is that they are cases of true diphtheria. Children who are born of syphilitic parents are very liable to pseudo-membranous inflammations of the mucous membranes of the respiratory tract.

Cases in which we find them in practice are about five in number, and will be considered under five different heads, as follows:

1. Catarrhal laryngitis with stenosis (measles, pertussis).

We often have a laryngitis with stenosis accompanying it; this stenosis may or may not be due to a membrane, and the child may be killed by the mechanical interference with respiration. Scarification of the

epiglottis has been done with good effect. Do not forget that a catarrhal laryngitis may kill.

2. Ulcerative stomatitis with visible membranous patches and stenosis of the larynx.

Ordinary stomatitis is usually seen in the mucous linings of the mouth; sometimes they are seen well back in the throat and should place one on their guard, for many of these cases may apparently turn into diphtheria and not into croup. It seems to be covered with this apparent membrane, and next day we find a croupy cough, stridulous breathing, and you then are often called upon to do a tracheotomy or an intubation.

3. Exanthemata and pertussis, plus visible diphtheria and stenosis of the larynx.

4. Primary naso-pharyngeal diphtheria and stenosis (usually fever).

This class is shown you here to-day in the case of the young boy. This condition may last for several days, and he may appear to be better, but finally it will wiggle down into the larynx and make trouble.

5. Membranous bronchitis—tracheitis—laryngitis (no fever; pale larynx).

Now the question comes up: What can we do before we operate? Before the introduction of antitoxin there were various ways of managing these cases, and the result was a 70 per cent. mortality. Then mercury was given, either by way of the mouth, by inunctions, or by vapor. You all remember the calomel lamps. We also gave sprays, steam, salt water, lime water, turpentine, eucalyptol, etc., and all changed now on account of the use of antitoxin. Fumigations were given in an improvised tent, and ten to twenty grains of calomel were vaporized every two hours for twenty-four hours.

As soon as you are called to a case of croup, at once turn to antitoxin and administer at least 1500 units; if there is no improvement in twelve hours, give another injection of the same amount, and, if necessary, give even another. There are a great number of cases that will not get well, even under the antitoxin treatment. My own experience is that in more than one-half of the cases of diphtheritic croup recovery will follow if the antitoxin is used in time.

We can also give internally:

℞ Hydrarg. bichlor ..... gr. j
Aquæ destil ..... ℥ iv
Vini ipecac ..... ʒ ij
M. Sig.—A teaspoonful every hour.

Or give by inunction:

℞ Unguenti hydrargeri .....
Lanolini .....
Unguenti simpli ..... aa ℥ ij
M. Sig.—Rub in well every two hours.

There has always been a great deal of talk in regard to the relative value of tracheotomy and intubation. If tracheotomy be carefully done the results are rather good; about 40 to 50 per cent. recover. The best statistics from intubation, previous to the introduction of antitoxin, was 30 per cent. of recoveries. But from the combined use of antitoxin these

percentages are entirely changed. One gets such excellent results now without tracheotomy that this operation in the future will play but a little role. All should become familiar with the use of antitoxin; if you are not familiar with this new remedy, become so as soon as possible.

The proper time to operate is a matter of experience. But one should never wait for an intermittent pulse before attempting this operation; if you do, your mortality will be high. In performing intubation one can do this operation better if he has a good sized finger. In performing tracheotomy, do not forget that success often depends largely upon good and judicious after-treatment. Before attempting these operations on the living, one should always have the opportunity given him of practicing them first on the cadaver.

One should accustom himself to feeling in the larynx of the child in health in order to acquaint himself with the feel of the funnel-shaped part. Do not forget that it is more difficult to introduce a tube in the larynx of a cadaver than it is in the larynx of the living child. In the living child who is suffering from dyspnœa, with the muscles drawn up tight and the larynx high up, this procedure is easier. Every one of you should become familiar with intubation; if you had a severe case and you had exhausted all your remedies, and the child was threatened with suffocation, if you did not have your intubation set or did nor know how to use the instruments, you certainly would feel decidedly flat. One does not require an extra long finger; the ordinary sized finger is sufficiently long. The time to operate on these patients is a matter of experience, but do not fail to get the parents' consent early; thereby you save much trouble.

I wish to show you what I call "An Automatic Tracheal Retractor" which was invented by me about twenty years ago. One may not always have two or three assistants at hand, and this instrument may then be of great assistance to you. It consists of simply a double hook connected together by a rubber tube, and is for the purpose of holding the tissues apart. It certainly will save you one or more assistants. An intubation set is something that all of you should possess; the cost of the set is now about $20 or $25, and in each one you should find Dr. O'Dwyer's card showing that he has inspected the set. But, gentlemen, I am sorry to tell you this afternoon that Dr. O'Dwyer's card will not be seen again; he is now suffering from tubercular meningitis, and will not recover.

St. Louis Medical Society.—At a meeting held January 8, 1898, the following officers were elected: President—Dr. J. C. Mulhall; Vice-President—Amand N. Ravold; Secretary—M. F. Engman; Recording Secretary—A. S. Barnes, Jr.; Treasurer—A. R. Kieffer.

Ferratin.—The physiological and therapeutic importance of ferratin is based upon the fact that, after absorption, it is immediately available, while other compounds of iron, including the simple albuminates, must first be changed into ferratin (in the system) in order to become active agents.—PROF. G. A. FACKLER, of Cincinnati, in *Lancet-Clinic.*

ORIGINAL ARTICLES.

REPORT OF A CASE OF FATTY DEGENERATION OF THE HEART, A SEQUEL OF INFLUENZA.[1]

By LYMAN CARSON HAY, M. D.,

President Hot Springs Medical Society; Member Arkansas Society; Member Mississippi Valley Medical Society; Member American Medical Association, and Fellow of the Academy of Medicine.

THE literature on the subject of fatty degeneration of the heart is so brief, the question of its etiology so vague, and its ante-mortem diagnosis so difficult, that the writer can but believe that the careful report of even a single case will prove a valuable contribution to medical literature. The short notes that are available in text-books and journals have led me to believe that the acute fatty degeneration of the heart is a not infrequent sequel of that treacherous disease, influenza; that if diagnostic acumen were more acute, and macroscopical and microscopical post-mortem examinations more frequent, the "heart failure" of mortuary reports and statistics would, in a considerable number of cases, be found to have behind it a definite pathological lesion of the cardiac tissue.

This is the point I wish to emphasize in this paper, viz.: that influenza is sometimes, probably often, followed by a fatty degeneration of the heart muscle. An appreciation by physicians and laymen of this fact, and especially that even youth is not exempt, might at least lead to the carrying out of prophylactic measures during the prevalence of epidemics of influenza that would lead to a lessened incident of the disease and, therefore, ultimately to a saving of life—the great aim and end of all medical science.

On April 17, 1897, there came into my office, at Hot Springs, Ark., Mr. C. S. M., a resident of the State of Illinois; he gave the following history: Age, twenty-three years; occupation, telegraph operator; single. In May, 1896, he had an attack of gonorrhœa. He was pronounced cured in three months, but the discharge returned and has continued in a slight degree ever since. About January 1, 1897, he was taken down with a severe attack of influenza, which kept him confined to the house for nearly two months; since that time he has been gradually losing strength and feeling weaker; has occasional attacks of fainting, without loss of consciousness; he had lost about fifteen pounds in weight; he knew of no hereditary disease in his family; denied having had syphilis; had never used alcoholic liquors to excess, and did not use tobacco. On careful physical examination, his condition was found to be as follows: Lungs,

[1] Read before Arkansas Medical Society, in May, 1897, at Little Rock, Ark.

normal; urine, normal; temperature, normal; glandular system, normal; no evidences of syphilis; nervous system, reflexes sluggish, appears depressed and apathetic; constipated and appetite poor; tongue not coated; appears anæmic, poorly nourished and emaciated. A general feeling of extreme weakness, exhaustion and shortness of breath supervenes on the slightest physical exertion; sighs frequently. Evidences of deficient circulation of the blood, cold extremities, lips dry and slightly cyanosed. Careful examination of the heart by stethoscope, phonendoscope, &c., shows no unusual dullness or other abnormality, except increased rapidity of action (90 to 105 per minute) and feeble in sound. No valvular or other murmurs; pulse at wrist scarcely perceptible. Occasionally has dull pain over pericardial area. Skin shows a dirty, yellow and slightly greasy appearance. Mental condition, an evident lack of decision. Was contemplating matrimony, and very much discouraged about the long continuance of his chronic gonorrhœa; sometimes talks in a rather "flighty" manner, evidently the result of a cerebral anæmia. No evidence of any disease of any of the abdominal organs. Joints, normal. Muscular system, normal, except for the emaciation. Slight gleety discharge from the urethra.

The provisional diagnosis reached at this time was a nervous depression, or neurasthenia, following influenza. A favorable prognosis was given, as there seemed no reason why the *vis medicatrix naturæ*, assisted by a few weeks of tonic, dietetic and hygienic treatment here should not restore him to health.

The treatment recommended and carried out was rest in bed, nutritious liquid diet, and the administration of tonics and stimulants, notably arsenic and considerable doses of strychnine sulphate. From this time on he was under my close and careful observation. The temperature, urine, etc., were examined at intervals during the progress of the disease and found to be always normal, except for a fall in temperature just before the end.

On the 19th inst., although he had taken sufficient strychnine to produce the physiological effect of that drug, as evidenced by the twitching of the muscles, etc., the curious fact was observed that there was no apparent strengthening or stimulation of the heart; the patient was still feeling very weak—if anything, weaker than when he came to my office, two days before. On the evening of the 20th inst. he had one of his fainting spells; when I reached him the pulse at the wrist was entirely imperceptible. Active stimulation by nitro-glycerin, followed by digitalis and strychnine, tided him over the collapse, and he was soon again in his usual condition.

I now realized that some more serious trouble lay behind the symptoms than an ordinary neurasthenia, and that I must change my first diagnosis. The only pathological conditions compatible with his symptoms were myocarditis, fatty degeneration of the heart, and, possibly, pernicious anæmia. The latter was easily eliminated, as the heart symptoms were so predominant; there had been no hemorrhage, no elevation of bodily temperature, and a microscopical examination of the blood showed the characteristics of ordinary anæmia, but none of the appearance of the blood in pernicious anæmia—extreme oligocythæmia, pronounced poikilocytosis, and absence or diminution of blood plaques.

It was evident, from the symptoms, and the fact that a powerful stimulant drug would but feebly, if at all, affect the heart, that there was here some profound pathological alteration of the tissues of the heart.

After thoughtful consideration of the case, and consultation of all the medical literature in my library, and the excellent library of the Army and Navy General Hospital, at Hot Springs, courteously placed at my disposal by Capt. C. C. McCulloch, one of the officers of that institution, I arrived at the conclusion that I had here either a myocarditis or a fatty degeneration of the heart.

The best authorities on the subject practically state that it is impossible to make an ante-mortem diagnosis between the two conditions. My opinion was, however, that the preponderence of the symptoms in this case was in favor of a diagnosis of fatty degeneration. See Schraetter in Zeimmsen's "Cyclopedia of the Practice of Medicine," Vol. XI., pp. 242 and 256; Loomis' "Practical Medicine," 8th edition, p. 529.

Neimeyer, in his "Practical Medicine," American edition, p. 372, says: "A positive diagnosis is impossible in most instances."

Osler, in his "Practice of Medicine," edition 1892, p. 642 *et seq.*, says: "The symptoms of myocardial disease are notoriously uncertain. Fatty degeneration of the heart presents the same difficulties."

Loomis, in the "Reference Hand-Book of the Medical Sciences," Vol. III., p. 558, says: "It is almost impossible to distinguish fatty degeneration of the heart and chronic myocarditis."

DaCosta, in his "Medical Diagnosis," 8th edition, p. 484 *et seq.*, says: "Fatty degeneration is one of those disorders with the anatomical characters of which we are far better acquainted than with their clinical history. Our power to recognize the fatty change during life has not kept pace with our power to recognize it after death. There is, as yet, no sign discovered by which we can positively say that the dangerous disorganization of the muscular fibers of the heart is in progress. We may, however, suspect it if the signs of weak action of the heart, feeble impulse, and ill-defined sounds, co-exist with oppression, with a tendency to coldness of the extremities, with a pulse permanently slow, or permanently frequent and irregular, and be met with in a person who is a subject of gout or a wasting disease, or is very intemperate, or who has arrived at a time of life at which all the organs are prone to undergo decay. Sometimes more than a suspicion is warranted, if, in addition, there be proof of atheromatous change in the vessels, or of fatty degeneration elsewhere, such as an arcus senilis; or if it be ascertained that the patient suffers from pain across the upper part of the sternum, and from paroxysms of severe pain in the heart; that he sighs frequently; that he is easily put out of breath; that his skin has a greasy, yellow look; that he is subject to syncope, or to seizures during which his respiration seems to come to a standstill, and that he is liable to vertigo. The extent of the cardiac dullness remains unaltered (unless dilatation co-exist), and dropsies and local congestions are not prominent symptoms, or indeed do not happen at all. The remarks about fatty heart apply particularly to that variety of the disorder in which the muscular structures in middle-aged or elderly persons are slowly undergoing decay. *But we also, although far less frequently, meet with fatty heart in young persons, and in a more acute form.*

"Persons who have fatty hearts are subject to attacks of faintness, preceded or attended with sensation of great coldness, or a chill. Sometimes these attacks happen daily, or every few days; a number of instances of the kind have come under my close observation, and I have met with them particularly at the end of fevers or other debilitating disease happening in those with feeble hearts."

I have quoted thus copiously from the authorities, especially DaCosta, in order to emphasize the great difficulty and importance of reaching a correct diagnosis in these cases.

To return to the case in hand. I called in consultation Dr. Champe McCulloch, of the Army and Navy Hospital, who, after a thorough examination, agreed with me as to the diagnosis. As the days passed by this patient's condition remained about the same, except showing evidence of gradually and slowly failing day by day, though active stimulant medication was continued throughout. In the evenings he would complain of nausea and occasionally vomiting, and at times would exhibit a "flighty" condition of mind. The heart would not respond to stimulation in the slightest degree, gradually growing weaker and weaker until the pulse at the wrist was scarcely perceptible. Toward the end, insomnia and restlessness supervened at night. He had attacks of syncope at intervals. On the morning of April 3d, at my usual visit, I found that he had grown much worse during the night and, according to the nurse, had at times been delirious and even violent and maniacal. He had rapid and shallow respiration. At noon he was unable to recognize me and was very restless, tossing his legs and arms about the bed, talking incoherently, although he would respond to questions; complained of nausea and thirst, the brain symptoms being evidently due to cerebral anæmia. The skin was dry and the extremities very cold. No pulse at the wrist; heart very feeble and beating from 120 to 140 to the minute. Cheyne–Stokes respiration was present toward the end. Marked cyanosis and failure of the circulation. He gradually grew worse until he died at 4 P. M. Dr. McCulloch was with me in the afternoon and we resorted to all possible methods of stimulation by drugs, external heat, and even hot rectal and subcutaneous injections of hot normal saline solutions; but, as stated, all without avail.

None of the friends or relatives of the patient being in the city, we made a hasty post-mortem examination (*sub rosa*) before turning the remains over to the undertaker. The heart tissue was flabby in texture and easily torn, the heart substance being pale and yellowish in color, the muscular tissue being evidently atrophied. Microscopical examination of sections of the heart, prepared and stained in the laboratory of the Army and Navy General Hospital by Dr. McCulloch, showed the usual characteristics of fatty degeneration of the striated involuntary muscular fiber, cloudiness of the fibers, droplets of fat varying in size within the sarcolemma, and finally in places a disappearance of the normal transverse striation. The changes were most marked in the papillary muscles, but affected as well the other areas of the heart wall. None of the other organs showed any apparent pathological alterations.

The ante-mortem diagnosis was thus confirmed. The pathological condition here found (Quain's fatty degeneration of the heart) must be carefully distinguished from the much frequent and less serious condition of

fatty degeneration of the heart where the fat is collected, not in, but between and around the fibers; the latter occurring especially in obese persons of sedentary habits, and is not inconsistent with many years of fairly comfortable existence.

The one remaining point I wish to make is in connection with the etiology of the disease. I believe the bacillus of influenza elaborates a poison which, when taken into the blood in sufficient quantities, acts as a powerful heart depressant and modifier of the nutrition and protoplasmic integrity of the heart muscle. Recent literature is beginning to contain many examples of such action. In Sajous' "Annual of the Universal Medical Sciences," Vol. I., for 1896, page B, 31, four cases are reported by Chiperovitch, of St. Petersburg, of fatty degeneration and consequent rupture of the heart following influenza; the remark is there made that "the important part played by infectious diseases in the production of cardiac vascular changes is fully realized, and these maladies may therefore also be considered as having an important influence in the pathogenesis of rupture of the heart." It is noteworthy that one of these cases occurred in a young man of thirty-six years and death was delayed for several days after the occurrence of the rupture. The case that I herein report is, so far as I have been able to find, the youngest case reported of fatty degeneration of the heart following as a sequel of an acute infectious disease. The practical point I would make is this: Since the treatment of the disease, when once established, is hopeless, our efforts as practical scientists having in charge the health and lives of the public, should be directed towards lessening the prevalence of influenza by educating the laity as to its dangers and recommending in our practice the carrying out of the methods of preventive medicine.

It is now established by science that influenza is due to a bacillus discovered by Pfeiffer, and which probably has as a *portio invasionis* the respiratory apparatus, and its *infection atrium* the mucous membrane of the bronchial tubes, that, therefore, the disease must be conveyed from one individual to another, and probably indirectly through the sputum, which contains the bacilli in great numbers, and that a person who is not exposed to the secretions of the diseased individual will not contract the disease. In spite of popular notions and prejudices to the contrary, the method of prophylaxis recommended by Nuttall in his "Hygienic Methods in Infectious Diseases," is the rational one. Disinfection by antiseptic solutions of the sputum of influenza patients, and the isolation of the patients to be carried out as far as practicable. Also, the staying away from public assemblies and gatherings and the sick, by those who do not wish to contract the disease, especially the aged or those affected with weak hearts, or who are run down in general health from any cause.

Dermo-Lasson.—The St. Louis Physicians' Supply Company will furnish our readers free samples of this elegant preparation, also samples of their other specialties. Dermo-lasson is a substitute for iodoform, and deserves a trial at your hands.

PECULIAR GALL-STONE CASES.

By Byron Robinson, B. S., M. D., of Chicago,
Professor in the Chicago Post-Graduate School of Gynæcology and Abdominal Surgery.

MUCH attention has been paid to the gall-bladder of late; in fact, so much that one can now secure a stately library on the subject, and only rare cases have any particular interest. The following cases came under my own observation:

Case I. was brought to my office by Dr. H. Upton. She was fifty-six years old and had been ill occasionally for seven years; the last year almost continuously, and she vomited very seldom or never except at one of the rare painful attacks. She had had many physicians, and the majority diagnosed cancer of the stomach or of the pancreas. All complaints were made in regard to the stomach; otherwise well. In the past six months she had lost thirty-five to forty pounds. My diagnosis was gall-stones, which concurred with that of Dr. Upton, who had treated her for the past ten months. Her skin had been yellow three times. A slight indefinable mass could be felt in the region of the pylorus. She went home, but soon returned, entered the Mary Thompson Hospital, and Dr. Lucy Waite and I operated. We found the pylorus perfectly normal, but a mass of adhesions in the region of the gall-bladder which, being old and well organized, were difficult to break up. The difficulty lay in finding the gall-bladder, but after the tearing up of many adhesions it was traced to the hepatic flexure of the colon, to which it was adherent, and also to the adjacent abdominal wall. The gall-bladder was freed from these two points, after which it appeared like an elongated small intestine with enormously thickened wall. The moving to and fro of the colon had elongated and hypertrophied the gall-bladder. The occasion of the gall-bladder being fixed to the colon was that a gall-stone had perforated the gall-bladder and the colon six years previously, when she had a violent spell of illness and was confined to bed for six weeks. The gall-bladder was opened and some eight stones about the size of hazel nuts were extracted. One large stone was found in the hepatic duct, high above the entrance of the cystic duct, which could only be extracted by fragmenting it between the finger and thumb. One stone, hazel nut size, was found in the common duct near its entrance to the duodenum, which was forced back into the gall-bladder. The stones were yellow near the circumference and dark in the center, of the soft variety. The elongated, hypertrophied gall-bladder was carefully stitched to the peritoneum and subcutaneous tissue. I learned, by sad experience, not to stitch the gall-bladder to the skin, for a persistent or even a permanent (muco-epidermal) fistula may follow. She recovered.

Conclusions.—She had attacks from the presence of gall-stones for seven years with long intervals. She had jaundice three times. Six years

ago a gall-stone perforated the gall-bladder and the colon, and both perforations closed, leaving only a cicatrix. The jaundice of the skin was due to obstruction of the common or hepatic duct, but the obstruction subsequently gave way. The cause of her losing thirty-five to forty pounds during the past six months is not clear. The immense hypertrophy and length of the gall-bladder was due to its fixation to the colon and dragging on it by the mobile bowel.

CASE II. was found in an autopsy on a female, performed by Dr. Lucy Waite and myself. In this case the lower end of the gall-bladder lay in the right iliac fossa and contained a gall-stone the size of a hen's egg. All other abdominal viscera appeared normal. Symptoms in life were absent.

Conclusions.—The gall-stone had gradually enlarged by accretions to its surface, and the gall-bladder had gradually elongated until it had found a firm bed in the right iliac fossa. Such dragging would likely produce kinking of the bile ducts and consequent partial obstruction. The tumor produced by such a gall-stone would deceive the inexperienced and unwary in regard to appendicular disease. Such cases do not need an operation. However, there is some danger from ulceration and perforation of the gall-bladder; also kinking of the cystic and biliary ducts.

CASE III. was that of Dr. G., a woman of about fifty, in fair health until six months before her last attack. While riding home one evening she was taken with terrific pain in the abdomen. She vomited occasionally for four days, stool and gas passed naturally. On the fifth day I was called, and as she was a very fleshy subject, I could not make out any local pathologic point in the abdomen. And since she was not in pain, and had not vomited, I thought it best to await symptoms. I thought, however, it was gall-stones. Temperature 99° and pulse 85. Some dozen doctors were in consultation and the majority differed with me, considering it invagination of the bowel. She was quiet and easy until the eighth day, when she suddenly became worse and vomited severely, with temperature 100° and pulse 95. I still thought it gall-stones. She, up to this time, had refused to go to a hospital or have an operation. We succeeded on the eighth day in getting her to a hospital, and as she was an old friend and my surgical assistant, I requested Dr. Ferguson to operate. On opening the abdomen, the ilium was found distended and dark down to a point near the cæcum, and on following the dark, dilated gut to the contracted normal ilium, a stone was found, one and one-quarter inch long and one and one-quarter inch thick at the big end, and nearly one inch thick at the small end. It was in the shape of a truncated cone. The gut was gangrenous at the point where the stone had lodged. The stone was extracted, and the patient was so weak that the wounded, gangrenous bowel was simply stitched into the abdominal wound. She died of peritonitis on the third day.

Conclusions.—This stone was from the diverticulum of Meckel. It was originally a gall-stone. It was formed by accretions, and showed quite a number of strata. During the sixty hours subsequent to the operation perhaps a dozen gall-stones passed through the wound. The stone had remained an indefinite period in Meckel's diverticulum. It became dislodged at the time of the terrific attacks of pain. The several days of

quietness and no vomiting, with easy stool and passage of gas, is explained by the position of the stone in the bowel. The stone was larger at either end than in the middle—slightly hour-glass shaped. It was concave in the middle. Now, when the stone lay crossways in the bowel, some stool, and especially gas, passed easily. But when the stone lay with its long axis parallel to the long axis of the bowel, it completely occluded it, and symptoms of intestinal obstruction appeared, as vomiting and tympanitis. The gangrene was due to cutting off the circulation. But why a smooth stone one and one-quarter by one inch should gangrene a bowel, when a much larger mass of fæces will not do it, is not clear. The case also teaches that in very obscure abdominal cases, especially those which come on suddenly, we should insist on an early operation. Temperature and pulse in this case were useless as symptoms, yet on the fifth day, when I saw her first, she was as comfortable as a well person.

I have not been able to find in literature, however, nor through a very extensive search, a case of obstruction of the bowel by a stone being dislodged from Meckel's diverticulum. Bradburg reports two cases of intestinal obstruction from gall-stone; Gant reports three cases of intestinal obstruction by gall-stone.

CASE IV. was in an autopsy peformed by Dr. Lucy Waite and myself. The subject was, perhaps, sixty years old. The gall-bladder was adherent to the duodenum, and a direct latent fistula connected the two. The gall-bladder was not as large as the little finger.

Conclusions.—A gall-stone had ulcerated through the gall-bladder and the duodenum years previously and left a non-healed fistula. The fistulous tract between the duodenum and gall-bladder had allowed pathogenic microbes or their products to pass into the gall-bladder, resulting in inflammation of the gall-bladder walls, and subsequent cicatricial contraction had occurred, practically obliterating the lumen of the gall-bladder. This practically and experimentally demonstrated, beyond any reasonable doubt that a fistulous tract (a bimucous fistula) maintained between the gall-bladder and the intestines may and does result in infection of the gall-bladder, with destructive structural and functional processes, and the infective process may extend to the liver.

CASE V. was a young woman under twenty-five, which Dr. Lucy Waite and I operated upon for gall-stone and removed about thirty hard, black stones. A year subsequently I reoperated for pain in this region, and found that the pain was due to kinking of the cystic duct, due to the fixation of the gall-bladder in the abdominal wall at the first operation. During a year subsequent to the operation the gall-bladder, from being an extremely short one, had elongated to six inches, and was bent in the old wound. We forced some fourteen ounces of fluid through the cystic duct after the gall-bladder was liberated and straightened. A probe could not be passed. I will say a probe is always uncertain as to its passage through the cystic duct. I experimented on quite a number of dead subjects, and one can seldom pass a probe through the cystic and common duct in the dead and, so far as my experience goes, in the living. A fistula existed for nearly six months after the first operation, because the gall-bladder was sewed to the skin (muco-epidermal fistula).

Conclusions.—Never stitch the open gall-bladder to the skin, because it may result in a persistent or permanent (muco-epidermal) fistula. Stitch

the gall-bladder to the subcutaneous tissue of the abdominal wall. Do not fix a small, short gall-bladder in the abdominal walls, if all the stones are removed, because it may subsequently result in elongation and kinking. Reunite the wound in the gall-bladder and drop it back into the abdominal cavity. If one is afraid to do this, he can pack gauze about the bladder for a drain. Allow no permanent silk sutures to remain very close to the gall-bladder wall, as they may ultimately slough into the gall-bladder lumen and produce a permanent fistula. This case recovered after both operations, but progressed unsatisfactorily, on account of kinking of the cystic duct after the first operation, and on account of buried silk ligatures becoming infected after the second operation. What finally became of the patient, I am unable to say, as I lost sight of her.

CASE VI.—The relation of gall-stone and cancer of the liver has impressed me considerably during the past four years. At the Cook county morgue I have carefully observed several hundred post-mortems during that period, and among them cases of gall-stones and cancer have occurred together. After observing such cases, I am almost persuaded that the gall-stones are the cause of the cancer. Yet, gall-stones are so numerous in autopsic work that it would not be strange to find gall-stones accompanying cancer. This would make the etiology of cancer rest on trauma or irritation. No ordinary or common case of gall-stones is included in the above report; simply odd or peculiar cases. I am convinced by over five hundred personal autopsies, and by a dozen years of special labor in abdominal surgery, that many more people have gall-stones than is supposed. It appears to me that the pains, light or severe, which follow meals and at odd times of the day, in the region of the gall-bladder, are not infrequently due to gall-stones. Many subjects have pain in the gall-bladder region. The pain is due to a stone becoming engaged in the ducts, and it subsides when the stone falls back. The bigger the stone, generally, the safer the subject, for it will not engage. Very small stones easily engage. Gall-stones are quite common in autopsic work. However, physicians sometimes send me a case to operate on for gall-stones, when all I can discover is some gastritis; and occasionally time proves that the diagnosis was correct. Stomach irrigation and regulation of diet aids the case to recover.

A Perfect Coadjuvant.—Physicians should not forget that no matter what their preference may be as to the form in which milk should be used for their patients and the babies under their care, whether it is modified, sterilized, Pasteurized, peptonized, treated by some other method, or natural, they can always depend on the perfect coadjuvancy of that unrivalled dietetic preparation, imperial granum. Many years of successful clinical experience having proved this combination of nutriments to be acceptable to the palate and also to the most delicate stomach at all periods of life, being in many cases retained and assimilated when everything else is rejected, though in very extreme cases the imperial granum is often prepared with pure water only.

REPORT OF A CASE IN WHICH A FISH-BONE WAS SWALLOWED AND TWO MONTHS LATER WAS REMOVED FROM THE GLUTEAL REGION.[1]

By H. G. Gould, M. D., of St. Louis.

HAVING due regard for the comment that may follow, I herewith submit the following report of a case which occurred recently in my practice:

On November 18, 1897, Mr. W. M. F., age twenty-four years, by occupation a clerk in a dry goods store; about five feet ten inches tall, weight 157, called at my residence complaining of a boil just under the right ear. He informed me that this was the first boil he had ever had. As fluctuation was present, I evacuated the abscess and placed a simple dressing. I heard nothing more of him until December 8, 1897, when he again submitted himself, complaining of other boils, one on the left and back of his neck, the other two inches posteriorly and one inch below the trochanter major of the right thigh. I lanced the abscess of the neck at once, and as the swelling and pain was intense in the thigh, I advised quiet and poultices. On Sunday, December 12th, I visited him, found fluctuation and evacuated the abscess of the thigh, securing about four ounces of a very heavy pus. While exploring the cavity of the abscess with my finger I observed a sharp and movable point. Thinking it might possibly be a spicula of bone, I removed it with a small dressing forceps. This proved to be a *fish-bone*, which I herewith submit for examination by the society.

The previous history the patient gives me aids in throwing light upon the subject. Some two or three months ago, while at dinner, he knew he swallowed a large fish-bone; he remembers and states positively that the same evening he experienced pain in the region of his stomach and that he ascribed his pain to the bone; but, as they lasted only a short time, he gave the subject no more attention. About the first of November he noticed pain in the rectum while sitting; also at stool he observed a little blood, and concluded he had an attack of hæmorrhoids.

The conclusion I arrive at in this case is: The patient swallowed the bone, which made its journey safely through the digestive tract until it reached the rectum, where it became caught in the mucous folds, passing through the rectal walls out into the muscular tissues, to cause the results here described.

The two or three days following the removal of the foreign substance I was hopeful that the trouble would end with the healing of abscess cavity, but now I am firmly convinced that I have a fistula connected with the

[1] Read before the St. Louis Academy of Medical and Surgical Sciences, December 21, 1897.

rectum to deal with, because the induration is still present, with a considerable quantity daily of bloody serum of decidedly fæcal odor.

I am unable, at this writing, to find a similar case reported. Certainly, the speedy removal of the foreign substance "was a consummation devoutly to be wished," because, when one reads of and has had some experience with foreign bodies in the muscular tissues, we are reminded of the very erratic courses such substances frequently take.

In this case, while it was of deep origin and its locality would immediately suggest to the observer that extensive inflammatory and suppurative changes were in close proximity to a large nerve trunk, no neurotic manifestations were present; in fact, the disability was of such a character as to be considered secondary to the boil on the back of the neck.

When foreign bodies become imbedded in the tissues, especially in the regions of heavy muscular activity, their course can in no way be mapped out. If the substance is of high specific gravity, it gravitates, following the general line of muscular force; if the diameter is relatively small to its length and of low specific gravity, there is no telling which way it will travel, or how great a distance it may go before causing trouble and making itself manifest by external symptoms. We have all read of the marvelous wanderings of the needle in the human body, but when we have such a substance as I here present, we are reminded that, at the least, we have a substance that might have become a most erratic emigrant.

SYPHILITIC NODE AND SYPHILITIC DACTYLITIS.

By A. H. OHMANN-DUMESNIL, of Saint Louis.

THOSE who have read the series of descriptions of various syphilitic eruptions and other phenomena in the present series of cases will, no doubt, have observed that syphilis is well and justly entitled to the characteristic appellation of protean. The manifestations which are observed also differ materially in the same type and are as diverse as the individuals who are affected by the process. The evidences of the disease which first show themselves are usually of quite a mild character and occasion but little trouble. The chancre is painless and inclined to heal spontaneously. The cephalalgia does cause some disturbance, and it is always observed at the beginning of the secondary stage or at that time when the cutaneous efflorescences first make their appearance. Other and more serious forms of headache occur in the later period of the disease, when the brain is affected with gummata, or fibrous infiltration of the brain substance occurs, or some organic change takes place as the

result of the post-syphilitic process, which frequently exercises its influence. It is by no means a rare occurrence to observe involvement of the periosteum of the bones which are superficially situated. It is a well-known fact that patients, in the early stage of secondary syphilis, will complain of "rheumatic" pains, along the tibiæ most generally. These are the so-called osteocopic pains. They occur chiefly at night when the legs are warm and all the subjective symptoms point to periostitis. If the finger be passed over the crest of the tibia pain is elicited, and this is a further indication of the presence of periostitis. The genuine osteocopic pains do not occur until later on, and will be referred to further on in the course of this article. The pains of the early secondary period are but temporary, and, whilst they disappear quite rapidly under appropriate internal treatment, they will not persist for any considerable length of time if permitted to go on untreated. That this is a true periosteal process has been satisfactorily demonstrated, not only by means of the proper interpretation of the history and of the subjective symptoms, but by biopsic and post-mortem examinations as well. The acute character of the pain subsides in a comparatively short time, and there seems to remain no evidence of the trouble which caused so much acute pain but a short while before its disappearance. Thus, much attention has been devoted to this particular trouble because there is a mistaken idea in the minds of many that it is a bone implication, this impression being further fortified by the indiscriminate use of the erroneous and misleading term "osteocopic," which is really not properly applicable to the pains observed in this early stage of syphilis.

In the later stages of syphilis, at that indefinite period when the so-called tertiary symptoms make their appearance, a peculiar condition becomes manifest. The deeper organs and tissues become implicated, or connective tissue proliferation becomes universal and apparent, new growths show themselves in the form of gummata. No structure is spared, and changes organic in character occur which are frequently not only directly dangerous to life, but may lead to such destructive processes that the changes occasioned by them can never be relieved. Some may be palliated, to a great extent, by means of operative measures, if the latter be done early enough in the development of the trouble. Among these troubles which frequently necessitate surgical interference may be mentioned those involving the skeletal system. The principal forms in which these affections of the bones indicative of the propriety of operating occur are hyperostoses, exostoses, osteophytes and osteomata. These, again, may be more or less diffuse, great in number, or very sparsely distributed—not more than one being often present. A hyperplasia or a hypertrophy of the bone is quite apt to occur, and rarefying ostitis or the opposite condition of condensation of the osseous tissue follows. One of the bones which is very often attacked by ostitis is the sternum, which upon pressure elicits symptoms of pain in the patient. But the form most commonly seen is that which invades the bones most superficially situated, and more particularly the clavicle, the ulna, and the tibia. When the process involves a long bone, the lesion which occurs is more particularly known as a node. The tibia appears to be more prone to be the seat of this trouble than any other long bone, and it is to it that search for this lesion is always first directed. It shows itself as an enlargement which,

whilst comparatively prominent, shades off gradually into the tissues beyond. A good example of a tibial node is shown in Figure 1. Upon feeling the tumor-like formation, it is found to be somewhat roughened and not to possess that smooth surface which is always so apparent in the normal shin-bone. It does not require a particularly delicate touch to be

FIG. 1. Syphilitic Node of Tibia.

able to distinctly outline the boundaries of the enlargement. The size, of course, varies greatly with the individual and the age of the syphilis. As a rule, nodes attain a comparatively larger size in negroes than in whites. When they grow rapidly and to large dimensions, it is not an infrequent thing for caries to develop, and necrosis may also set in as an accompani-

ment. In either case, osteomyelitis may result as a final effect of the bone destruction which has declared itself. Syphilitic bone lesions are not all of the same character in the same individual, although they may be observed simultaneously. As an example, it may be mentioned that in the patient whose leg is shown in Figure 1, there existed an extensive perforation of the hard palate following a caries which was originally brought about by an ulcerating mucous patch of the affected portion, and which had been permitted to progress without any treatment. On the leg there may also be observed a small ulcer situated upon its outer side. This gives us further evidence of the fact that the patient was one who had never received either adequate treatment or care such as should always be given every case of syphilis, if a good final result is desired or expected. It is also necessary to adopt these means in order to avoid the severe later manifestations and the complications resulting therefrom.

One of the peculiarities of the osseous lesions of syphilis is the persistency to remain which they exhibit. The ivory-like exostoses are the ones which are the most marked in this respect. This fact it is which has led to some of the most important discoveries in respect to the age of syphilis. The discoveries made in tumuli and similar remains of antiquity have gone far to overturn the accepted theory that syphilis was brought to Europe by Columbus and his followers—that syphilis was an American product. It has been found and proven beyond doubt that human bones cotemporary with those of the cave bear have the unmistakable evidence of syphilitic osseous lesions. Specimens still later, and yet prehistoric, so far as any annals are concerned, have been found in Europe also which presented in the bony troubles the indubitable evidence of the fact that the individuals who carried these bones were syphilitic. In Peru have been found skeletons of adults and children, in urns, which presented not only the bony evidence of syphilitic changes, but the peculiar teeth so characteristic of so-called hereditary syphilis. There is no doubt, whatever, that syphilis existed in Europe before Columbus left on his first famous voyage of discovery, and the establishment of this proposition would never have been possible had it not been for the fact that the bones bore testimony to the truth. The lesions of the osseous system persisted with it whilst all other evidence of syphilis disappeared through the changes which the disintegration of the soft parts naturally induces. In view of these circumstances it can be readily understood and appreciated that the bony lesions of syphilis have a natural tendency to persist during life. Not only this, but it is the experience of all those who have had any occasion to see cases, that these lesions of the bones not only do not disappear spontaneously, but become more marked in time.

One of the observed peculiarities of bone syphilis is that in the ivory-like osteomata, in which there is a marked condensation of the osseous structure, very little hope can be held out that an absorption will ultimately result. For, no matter how active and thorough the treatment by medicinal measures, no impression whatever will be obtained; whereas, too energetic a treatment may lead to the formation of ulcers. As a matter of fact, the only method which can be pursued in such cases is to resort to surgical measures, should the syphilitic growth of bone be of such a nature and located in such a site and manner as to prove a serious matter, so far

as the irritation to and pressure upon important structures is concerned. In the syphilitic node such as is figured there exists a hypertrophy, both of the bone and of the periosteum; and it is quite possible to cause its disappearance by the application of external remedies in conjunction with the internal administration of remedies in marked doses. It must not be expected that very rapid results will be obtained. The first indications of the success of treatment will be made manifest by the gradual subsidence of the subjective symptoms. These will grow less and less severe and will eventually disappear; and, at the same time, the objective lesions will show quite a marked improvement for the better and eventually a disappearance of the trouble.

There is no doubt that the best possible local application that can be made to a node consists in some mercurial in ointment form, so combined as to be susceptible of ready absorption. It should be rubbed in regularly, and for a sufficient length of time at each application, but with only moderate pressure, as too energetic a friction is apt to produce such an irritation of the skin as to preclude the continuance of the treatment at the very time, perhaps, that it is most needed. Among ointments which can be used may be mentioned ordinary mercurial ointment. A good form in which it may be combined is the following:

℞ Ung. hydrargyri. ..... ℥ jss
Lanolini ..... ℥ ss
Ol. olivar-opt. ..... ʒ ij
M.

This may not prove sufficiently active, and a combination like the following will be found to be more efficient:

℞ Ung. hydrargyri ..... ℥ j
Hydrarg. oleat. 5% ..... ℥ ss
Lanolini ..... ʒ ss.
M.

Other mercurial ointments may be devised, but care should be taken that they are not too irritating, more especially in view of the fact that they should be rubbed in twice a day.

Of course, internal treatment must be added, and this also should be administered in a manner that admits of no doubt of its efficacy. To begin with, mercauro, in doses of twenty drops in water after each meal, will be found very effective. After it will be found that a mixed treatment is the best. A good working formula is the following, which, whilst it may seem to contain large doses, will be found well borne by a patient suffering from syphilitic node. The formula is as follows:

℞ Hydrarg. bichloridi ..... gr. vj
Kali iodidi ..... ʒ ij
Essence pepsini
Aquæ destillat. ..... aa ℥ iij
M. Sig.—Teaspoonful in milk after each meal.

After this mixture has been taken about two weeks, it is then necessary to resort to iodide of potassium. This should not be given in small doses, by any means, but rather in what is ordinarily looked upon as large ones. A drachm in milk, after each meal, is to be given, and this quantity

gradually increased up to the point of toleration. The hesitation usually shown in the administration of sufficiently large doses is, in a great measure, responsible for the apparently bad results which follow the exhibition of remedies which have always enjoyed a good reputation. This is particularly true in the treatment of old syphilitic troubles and should never be lost sight of in their therapy.

Syphilitic dactylitis occurring in the course of the acquired form of the disease is a rather uncommon symptom, and the cases which have been reported are by no means numerous. It is a rather late manifestation, which may affect either the fingers or the toes. It is comparatively common to observe it in cases of pre-natal, or so-called congenital, syphilis. This form, however, will not be considered here, but rather the acquired form, as it has not received as much attention in the general considerations of syphilis found in ordinary text-books and manuals. It first manifests itself by a reddening of the integument, which soon becomes rather tense and quite resistant. The tense condition becomes so marked that not only do the furrows of the skin disappear but a shining appearance becomes apparent. Swelling, which has caused the tense appearance, varies greatly in shape and size, varying according to the nature of the process itself and to that of the tissues which are involved. In all cases the enlargement proceeds gradually and assumes marked dimensions, this increase in size interfering with the mobility of the affected member, especially if the process is most marked about a joint, as occasionally happens. And it is in these articular cases, as they might be termed, that much attention should be given in order to prevent such an involvement of the joint as might totally impair its future usefulness. The same general rule must be followed as is enjoined in other articular affections, no matter what the origin of the trouble may have been.

There are two varieties of syphilitic dactylitis observed in the acquired form of the disease. In the first we have that form in which the subcutaneous connective tissue and the fibrous structures about the joints are involved. In the other form the periosteum and bone are primarily affected, the other structures being implicated secondarily. There are certain differences or peculiarities to be observed in the respective appearances of the fingers and the toes. When the latter are the seat of the trouble the entire member is included in the process, and it seems to extend from the extremity to the metacarpal articulation. When a finger is implicated, however, it would appear that it is usually the proximal phalanx which suffers, as shown in Figure 2. Some of the characteristics of syphilitic dactylitis which should be noted include the fact that the swelling and thickening are most marked on the dorsal surface, as a reference to the figure will plainly show. The palmar surface shows very little, if any, indications of change of such a character as to draw any particular attention to them, unless it be the one noticeable appearance of the increase in width of the affected member. Beyond this there is nothing indicative of the true condition present. Whilst the proximal phalanx is the one most frequently involved, the next one may share in the action of the process, or the whole finger, even, may be affected. It is usually the case that one finger is most involved, if it be not the only one involved. Some years ago, however, I remember having seen the case of an old negro

who had the forefingers of one hand, the right, and three of the other, involved.

Whilst it may be the periosteum and subcutaneous structures alone that may be implicated, as a general thing, cases will occur in which the

FIG. 2. Syphilitic Dactylitis.

bones are affected, there being present an osteomyelitis or specific periostitis with destructive alteration of the bone. In these cases there is a marked difference in the appearance of the affected member. In the first form described there is present more or less of a fusiform shape; whereas,

in the second, the phalanx has a round appearance and the diameter is quite large, giving the finger an appearance very much as though it had been stuck through a small lemon. It is not an unusual thing, in cases of syphilitic dactylitis, to observe a permanent thickening of the bone, which may remain alone as such, or be accompanied by a compensating circular atrophy of the phalanx directly underneath the thickening which is present. In some cases of dactylitis in which the bone involvement has been marked, it is not an unusual thing to find involution take place at a comparatively rapid rate. And, where hypertrophy existed, atrophy sets in, and it may be either circular or longitudinal. It is by no means a rare thing to observe necrosis in these cases and, as a result, loss of bone follows, and this, together with absorption of the bone, leads to a marked shortening of the finger. This shortening is an absolute and a marked one. A rather strange circumstance noted in connection with all of these cases is that little or no pain is felt or complained of, and, when absorption of the bones occurs, there is no ulceration of the soft parts. Much care should be exercised not to mistake cases of enchondroma, gumma, or hyperostosis, for dactylitis. A critical examination should certainly be sufficient to enable one to determine which variety of lesion is being dealt with, as well as to define the form and extent of the implicated tissues. The subjective symptoms can hardly be utilized as a guide, and more dependence is to be placed upon palpation in order to establish a differential diagnosis.

As this trouble is a late secondary manifestation, or one showing itself in the early portion of the so-called tertiary period, when the deeper tissues and structures are invaded, mixed treatment is manifestly in order. The iodides must then be exhibited, more especially from the fact that the fibrous structures about the bones, and the bones themselves, are attacked. The general treatment which has been outlined for the treatment of syphilitic node will be found of the greatest value and productive of the best results. Locally, if the periosteum be thickened and much tension exists, a free and deep incision will prove of benefit. Systematic and regular mercurial frictions, however, will be found to be quite sufficient and quite effective as an aid in causing a disappearance of the trouble. When atrophy of the bone has become established, no hope can be held out beyond that of securing an arrest of the process.

The Nineteenth and Twentieth Annual Reports of the Illinois Board of Health, which are to be published shortly, will contain an official register of the licensed physicians of Illinois. Every physician desiring his name and address correctly reported should send the information, giving date and number of certificate, to the secretary, Dr. J. A. Egan, Springfield, Ill.

CALAIS, MAINE, June 8, 1897.

ANTIBRULE CHEMICAL COMPANY, St. Louis, Mo.:

Gentlemen—You have in antibrule a sovereign remedy, far superior, in topical use, to anything heretofore prescribed. It is really astonishing. I will continue prescribing it. D. F. SEYMOUR, M. D.

HISTORICAL SKETCH.

I.

CELEBRATED ARABIAN PHYSICIANS.

By JAMES MOORES BALL, M. D., of St. Louis.

Serapion, the younger, lived in the eleventh century. His work on materia medica, *De Simplicibus Medicinis*, is a complete compendium of all that the Greek and Arab physicians had previously written upon this branch of medical science. His descriptions of certain drugs, such as asafœtida, nux vomica, spinage, musk and ambergris, are both complete and unique. "Ambergris grows in the sea, like a mushroom upon the land. In China, the greatest quantity of it is obtained from people who fish it up out of the ocean. Whales swallow the ambergris floating upon the waves, and immediately die from its effects. The natives then cut them open and find the most valuable pieces in the backbone; the poorest in the stomach." One can see from this specimen how utterly unreliable are the statements of the Arab writers on questions of natural history.

Masawaih Ben Hemech, or the younger Mesue, was born at Maridin, a city located upon the river Euphrates, and was probably a Christian and physician to the Caliph Alhakem, at Kahira. His work on materia medica, like that of the younger Serapion, was a compendium, which for several centuries was the universal text-book in the Christian schools of medicine; and even as late as the sixteenth century commentaries were written upon it. The theory of materia medica which Mesue propounds is, in the main, that of the Galenists. Upon its physical properties, full as much as upon the sensations which it produces, does he estimate the power of a drug; and in many respects, especially as concerns the influence of the color of the plant, his theory agrees with that advanced by Linnæus. He remarks that the source of many plants, and the condition of the soil in which they grow, has a marked influence in determining difference of strength. He divides intestinal evacuants into laxatives and purgatives; and purifies the blood by administering hops, whey, and asphodel. He sought to obtain a specific purgative for each part of the intestinal tract, observed that bitter remedies are stomachic tonics, and stated that the acids are useful in the treatment of fevers and inflammations. He remarks that if rhubarb be finely pulverized, its evacuant power is largely lost. His descriptions of sarcocolla, *penæa mucronata*, and the dog violet, *viola canina*, are worthy of notice. The practical part of his work, however, is made up of prescriptions directed against particular symptoms, without reference to their causes. His ignorance of anatomy is exhibited in his treatment of tic douloureaux: for the relief of this affection he applied a blister to the vertebral column, whence he supposed the facial nerves to take their origin.

ALBUCASIS, 1060-1122.

I now come to an individual who, in respect to surgical acquirements, was not equaled by any member of the Saracenic school. Khalaf Ebn Abbas Abúl-Kâsem, a Spanish Moor, who is generally known by the name Abulcasis, Albucasis, or Alzaharavius, was born at Al Zahra, or Zahera, a city near Cordova, in Spain. The date of his birth is unknown, and is differently stated by various medical historians. Sprengel states that he died in 1122, and cites Casiri as his authority. This learned German historian of medicine censures Dr. Freind for stating in his *History of Physick* that Albucasis lived at an earlier period. Freind bases his conjecture upon the fact that the Arab mentions the Turks in his treatise on medicine, just as if Turks were unknown previous to the twelfth century. The attentive student of general history will, however, call to mind the fact that the Turks made their individuality felt even as early as the sixth century, at which time they supplanted the Avars and sent an embassy to the court at Constantinople. These are statements whose truth is vouched for by several Byzantine historians. The *Al-Tasrif*, or medical treatise of Albucasis, is a mere compilation, and of no value excepting that portion which treats of surgery; but in this respect it is unique. His works have been published in twenty-five editions, the first of which appeared at Venice, in 1471. The last and best edition was issued at Oxford, in 1778; and contained the text in both the Arabic and Latin languages.

When we remember that dissection was prohibited by the religion of the Mohammedans, and that the Arab physicians blindly followed and servilely copied the anatomical writings of the Greeks, it is not a little remarkable that Albucasis should have produced his treatise upon operative surgery. He tells us that surgery, in his day, was almost forgotten in Spain, and cautions his readers of the danger of undertaking operations without a previous knowledge of the parts involved. His reasons for writing this treatise are set forth as follows:

"After having terminated, happily enough, the work on medicine which I undertook for your instruction, my sons, I have thought it proper to add a small treatise on manual operations, seeing that this part of our science is so much neglected in our country at the present time that there remain scarcely any vestiges of it. We can find only a few short descriptions of operations in the writings of the ancients; they are, however, disfigured by the ignorance of the book makers; the manuscripts are so faulty, that, at every step, we are in such doubt as to the sense of the authors, that no one dares enter into the study of surgery. I have, therefore, undertaken this little treatise for the purpose of reviving this most important and useful branch of our Art. I have detailed briefly the methods of operation, I have described all the necessary instruments, and I present their forms, by means of drawings; in a word, I have omitted nothing of what can shed light on the practice. But one of the principal reasons why it is so rare to meet a skillful surgeon is, that the apprenticeship to this branch is very long, and he that devotes himself to it must be versed in the science of anatomy, of which Galen has transmitted us the knowledge. He should know the functions of organs, their shape, and their relations; the number of the bones, and their modes of union; the origin and termination of the muscles, the nerves, the arteries, and the veins. In fine, no one should permit himself to attempt this difficult art without having a perfect knowledge of anatomy, and the action of remedies."

The philosophical advice of this old Arab is most excellent, and I would respectfully commend it to those men of the present day who, by

mistake, perform ovariotomy for ascites, and open abscesses of the neck only to find them spouting blood! His treatise is divided into three books: the first of which treats of cauterization for the relief of various diseases; the second, of operations made by cutting instruments; and the third, of fractures and dislocations. Like all the members of the Saracenic school, he was a great advocate of the use of the cautery. So popular was this instrument among his predecessors, that Diosorides, centuries before this time, spoke of its application as the "Arabian burning." Albucasis recommended the use of a hot iron for the relief of all local diseases; in tic douloureaux, he burned the corners of the mouth and the temples; in cataract he used caustics to the parts around the orbit, in order to draw the excess of humidity away from the eye; in spontaneous luxations he applied the same treatment to the tissues about the affected joint; and horrible, indeed, must have been the treatment of morbus coxarus. Cancerous growths were to be burned, not in the center, but at the circumference; and tuberous leprosy was to be treated by fire alone. All this recalls to mind one of the aphorisms laid down by Hippocrates, fifteen centuries before the time of Albucasis: "Those diseases which medicines do not cure, iron cures; those which iron cannot cure, fire cures; and those which fire cannot cure are to be reckoned wholly incurable."

The second part of the *Chirurgia* of Albucasis deals with those operations which are done by means of cutting instruments. Nearly one hundred different operations are described by him; and among them are: phlebotomy, lithotomy, laryngotomy, paracentesis, castration, amputations, and operations for the couching and extraction of cataract, for the excision of tumors, for the cure of hemorrhoids, and many other standard surgical procedures. He was the first surgeon to use the silver catheter, the instrument of Erasistratus having been manufactured out of copper. The work of Albucasis contains the first systematic description of the surgeon's armamentarium, with illustrations. His book contains a description of a case of extra-uterine pregnancy, in which the fœtus was discharged through an abdominal fistula; and this is probably the first case of the kind on record.

II.

GABRIEL FALLOPIUS.

Gabriel Fallopius (1523–1562) of Modena, was a noted Italian anatomist. In his twenty-fifth year he was made professor of anatomy at Pisa. Although the span of his life was short, he will be remembered always as the discoverer of the tubes which bear his name. According to Fisher, Fallopius "was the first anatomist who described the ethmoid and sphenoid bones, the muscles of the soft palate, and the villi and valvulæ conniventes of the small intestines. He also described the ear more minutely than had ever before been done. He discovered the little canal along which the facial nerve passes after leaving the auditory; it is still called the *aquæductus Fallopii*. He demonstrated the fact of the communication of the mastoid cells with the cavity of the tympanum; and also described the fenestræ rotunda and ovalis. In the treatment of diseases of the ear, he used an aural speculum, and employed sulphuric acid for the removal

of polypi from the meatus. In some of his supposed discoveries he had been long anticipated; for example, the tubes which bear his name were known and accurately described by Herophilus, over three hundred years before the Christian era, and also by Rufus of Ephesus, of whom Galen speaks as the best anatomist of the second century. Rufus refers to two varicose and tortuous vessels passing from the testes (as the ovaries were called) to the cavity of the uterus. Fallopius, however, gave a full account of their course, position, size and structure. He cut into them and found them hollow, gave them the name of tubæ seminales, and posterity attached his name to them, and in time came to a better comprehension

of their true function. This is not the only instance in the history of anatomical discovery where the name of a person, not its discoverer, has been given to an organ. Allusion has been made to Fallopius as a botanist; a genus of plants, *Fallopia*, has been named in honor of him."[1]

Fallopius was appointed professor of anatomy at Pisa, in the year 1548; and in 1551, at the instance of the Grand Duke of Tuscany, Cosmo I., he received a professorship at Padua, as successor to Vesalius. Besides, the chair of anatomy and surgery and of botany, he also held the office of superintendent of the new botanic garden in that city. Fallopius remained

[1] "Fallopius was the first who named the anterior part of the choroid corpus ciliare." Stricker's Histology, p. 849.

in Padua to the day of his death, which occurred in 1562. He was very properly succeeded by his favorite pupil, Fabricius ab Aquapendente, who had been for some time previously his anatomical demonstrator. His collected works, as published in Venice, 1606, embrace twenty-four treatises distributed in three folio volumes. Only one of his works was published during his lifetime, viz., his *Observationes Anatomicæ*, Venice, 8vo, 1561, which is considered one of his most valuable, containing, as it does, most of his discoveries and his animadversions on the works of other anatomists.

Fallopius makes no mention of the pulmonary circulation. He states that the "elaboration of vital spirits takes place in the left ventricle of the heart." The "vena arteriosa supplies the lungs with a finer quality of blood, corresponding with their finer and aerial texture." He says nothing about the interventricular septum, and does not explain how the blood reaches the left ventricle from the right.

Fallopius was given live criminals to dissect. However, he killed them first. The following passage shows his practice: "For the prince ordered a man to be given us, whom we killed in our fashion, and dissected (*quem nostro interfecimus et illum anatomizarimus*). I gave him two drachms of opium. He, having a quartan ague, had a paroxysm, which prevented the opium taking effect. The man, in great exultation, begged us to try once more, and if he did not then die, to ask the prince to spare his life. We gave him another two drachms and he died."

Vesalius corrected the anatomical mistakes of Galen. To Fallopius fell the task of revising the work of Vesalius. Between these two great men a bitter enmity existed. It was a glorious century for the renowned University of Padua when its chair of anatomy was filled successively by Vesalius, Columbus, Fallopius, Fabricius and Casserius.

College Expelled.—It is a strange thing that the expulsion of the Medical College of Ohio from the American Association of Medical Colleges has received practically no notice from the medical press. How has the item been suppressed? It would seem as if such an item would promptly "go the rounds" of medical journals, for there exists a feeling among medical editors that such a decided and flagrant violation of the rules governing medical schools of presumed good repute should be given all the publicity possible. Expulsion of a medical college from the association for dishonorable methods is equivalent to that of a member from the American Medical Association for unprofessional conduct; and should be given far more prominence because the dishonest act is not that of a single individual, but of a large number of men who each ought, like unto Cæsar's wife, to be above suspicion. Why, then, the silence about the Ohio Medical College?—*Am. Jour. Surg. and Gyn.*

The Pheno-Bromate Chemical Co., of New York.—This prosperous firm has recently removed to new and larger quarters at No. 38 Murray street, a change necessitated by the well-merited increase of business. The new offices are furnished in a way pleasing to medical men—and what is more, they are presided over by congenial spirits. Success to pheno-bromate!

FORMULAE.

Epilepsy.

℞ Ammon. bromid ..... ℥ vi
Antipyrin ..... ℥ i
Liq. potass. arsen ..... ʒ i
Aq. menth. pip ..... ℥ vi

M. S. ℥ ss. in water night and morning.—WOOD.

Diphtheria.

℞ Hydrarg. chlor. mit ..... gr. i
Sodii bicarb ..... gr. xxiv
Pulv. aromat ..... gr. vi

M. Ft. chart No. xii. S. One powder every two hours.—STARR.

Or,

℞ Menthol ..... ℥ iiss
Toluol ..... q. s. ad. ℥ x

Solve et adde:

Alcohol abs ..... ℥ ij
Liq. ferri chloridi ..... ℥ i

M. S. Apply with a cotton swab.—LOEFFLER.

Gout.

℞ Vini sem. colchici ..... ℥ ss
Potass. iodidi ..... ℥ ij
Liq. potass ..... ℥ iss
Tr. zingiberis ..... ℥ ij

M. S. ʒ i. twice daily in warm water.—HODGSON.

Or:

℞ Lithii benzoat ..... ℈ ij
Aq. cinnamomi ..... ℥ iiss

M. S. ʒ i. in a wineglass of water every four hours.—JACCOUD.

Neuralgia.

℞ Aconitinæ ..... gr. iv
Veratrinæ ..... gr. xv
Glycerini ..... ʒ ij
Cerati ..... ʒ vi

M. S. To be rubbed over the painful parts.

Do not apply to any abraded surface.—DA COSTA.

Or:

℞ Quininæ sulph ..... ʒ i
Morphin. sulph ....
Acid. arsen ..... aa gr. iss
Ext. aconiti ..... gr. xv
Strych. sulph ..... gr. i

M. Ft. pil. No. xxx. S. One thrice daily.—S. D. GROSS.

Chronic Bronchitis.

℞ Apomorph. hydrochlor gr. ss
Syr. pruni virg ..... ℥ ij
Syr. picis liquidæ ..... ℥ iv

M. S. Tablespoonful three times a day.—MURRELL.

Or:

℞ Acid. carbol ..... gr. xxv
Tr. opii camph ..... ℥ iij

M. S. A drachm added to one-half pint of hot water in the inhaler; use three times a day.—N. S. DAVIS.

Neuralgia.

℞ Menthol .....
Guaiacol ..... aa ʒ i
Alcohol, absolute ..... ℥ xviij

M. S. ʒ i. of this mixture to be rubbed lightly into the affected part two or three times a day.—SABBATINI.

Uræmic Headache.

℞ Potass. citrat ..... ʒ ij
Spts. juniperi ..... ℥ vi
Æther. nitr ..... ʒ ij
Inf. scoparii ..... ℥ vi

M. S. A wineglassful t. i. d.—DAY.

Hysteria.

℞ Acid. arsen ..... gr. ss
Ferri sulph .....
Ext. sumbul ..... aa gr. xx
Asafœtidæ ..... gr. xl

M. Ft. pil. No. xx. S. One t. i. d. p. c.—GOODELL.

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MEDICAL CHARITY ABUSE IN NEW YORK.

Dr. William S. Gottheil, of New York, in the discussion of a paper by Mr. James P. Cahen, president of the Board of Trustees of the West Side German Dispensary, said recently:

"Medical charity, as it exists to-day in our city, is organized upon the following basis:

"1. Every member of the community is practically entitled to free medical services. The mere fact of the existence of the need for such services, together, in some cases, with the willingness to affirm poverty, is sufficient.

"2. The administration of the vast amount of medical charity, many times more valuable, even in money, than all the other charities put together, is placed upon the shoulders of a small portion of the community —the doctors.

"Separate interests and vested rights have made many of the institutions in question anything but charitable ones. Pride in buildings, interest in growth of material with which to appeal for aid, and selfish aims have in many cases entirely eclipsed the charitable aspects of these foundations.

"Thus they have lost touch with the profession, and are regarded by those in a position to know the facts as agents for the aggrandizement of individuals and the progressive pauperization of the community.

"Now, the social maladjustment that is directly responsible for the unsatisfactory condition of the profession and the gloominess of its future prospects seems to me to be this: Dependent upon the fact that in medicine, as in no other branches of human effort, the highest aims are directly destructive of value as a means of earning a livelihood. In no other calling are the efforts of all its worthy members constantly directed to the lessening of the need for it. In no other calling does each advance undermine the ground upon which its practitioners stand. Our living depends upon disease, yet we very properly spend our best efforts in trying to diminish and abolish it. If, therefore, we are to act as the guardians and promoters of health, we are in an essentially anomalous position when we can earn our living only by disease.

"Since, then, our highest aims and truest interests are at one with those of the community in regard to the diminution of disease, and since sickness alone constitutes an incontestible claim for care, it is evident that the administration of medical charity is a matter of communal and not of individual interest, and should be organized on other than the present lines.

"It is to the direct interest of the community that its doctors should be dependent for their livelihood not on disease, but on health; and the Chinese plan of paying the physician only while in health is much more rational than our own.

"Leaving now these more general considerations, what can be done to mitigate the rampant abuse of medical charity in our community, and incidentally to protect the means of livelihood of the profession? It seems to me that the only hope for us lies in the direction indicated by the words 'Organization of Medical Charity.' I submit the following points:

"1. The recipient of medical charity is a pauper, and should be treated exactly the same as are the recipients of other charities, in so far as the differing needs of the cases allow.

"2. The fraudulent recipient of medical charity is a criminal offender just as much as the fraudulent obtainer of money or other aid, and should be treated as such.

"3. The investigation of applicants for medical charity is as absolutely required as that of applicants for food or clothing.

"4. The administration of medical charity is a communal affair, and is not to be left in private hands. The amalgamation of existing hospitals and dispensaries, their adjustment in size, equipment and location to the needs of our pauper population, and the withdrawal of public recognition from private institutions of so-called medical charity. These are necessary steps for the placing of the medical affairs of this community upon a satisfactory basis.

"5. The cost of the administration of medical charity should be borne by the community. The men who do the work should be paid by the community. The absurdity of the plea that in medicine alone experience is a sufficient reward for work, is self-evident.

"6. All minor charges, as for medicines and dressings, should be abolished. If the patient is really poor, it is wrong to take away even a fraction of the dollar that may be needed for food and clothing; if he does not so need it, he has no business in the institution.

"And, finally, one word as to the means for attaining these desirable

ends. The health authorities of our community and the laymen in charge of our medical charities must feel by this time that there is some basis of justice in the deeply-rooted and widespread discontent with the present condition of things. Some association in which the lay managers of medical charities and its professional administrators could meet might, in the course of time, enable us to progress in the right direction. Advance, no matter how slight, is still a matter for congratulation. Even the present agitation has already had good results. Faulty social conditions are always finally rectified."

IN CASE OF WAR WITH SPAIN.

At the time of going to press it would seem that war with an effete European monarchy is inevitable, if the citizens of the United States are to maintain their self-respect and be true to their traditions. If this country ever gets into a condition in which money can make amends for insults to its citizens and murder of its sailors, we will not be worthy of our freedom. It is evident to any thinking mind that one of our best ships has been destroyed by a treacherous power whose whole history is a tale of blood and murder. No doubt, an effort will be made to make amends on a money basis. Such, doubtless, will be the President's idea. We hope that there is enough Americanism left in Congress to cause that body to declare war if it is found that the loss of our battleship was not an accident.

In case of war with Spain members of our profession would be of greater value than in any conflict heretofore; for the idea is now dominant that much of the success of a conflict depends on the medical corps; not so much in treating the wounded as in keeping the men in the best possible physical condition. Our surgeons would no doubt have to face many new conditions. One of the earliest movements would be the invasion of Cuba by our forces. Here our surgeons would have to deal with small-pox, yellow fever, and malarial fevers, of a virulent type. Camps will have to be selected, not only from a view to defense, but with ever an eye to the health of the men. Food will be provided with greater care than in our last war, and every comfort that can keep our soldiers well will be provided. In the treatment of wounds it is needless to remark that a revolution has occurred since our last war. Antiseptic surgery will reduce, to a marked degree, the mortality following wounds. Methods for the transportation of the sick and injured have been vastly improved since the days of the Rebellion. A new chapter will be written in the history of military surgery, in case we have war with Spain.

At the best, it will be no holiday job. Thousands of our men will succumb to wounds or disease. Surgeons are not always secure, as is proven by the records of former conflicts. War is a terrible calamity, but there are worse things for a nation than the unsheathing of the sword.

ANOTHER LIE NAILED.

Some weeks ago the St. Louis Medical Society blackballed Dr. Runge, superintendent of the Insane Asylum. No reasons were given for such action, and great indignation has been aroused by the action of the

society. To cap the climax, some malicious individuals, of which class the St. Louis Medical Society seems to have an excess, have started the report that Dr. Runge was turned down by members of the St. Louis Academy of Medical and Surgical Sciences. It is, perhaps, unnecessary to say that the report is false.

THE TRI-STATE MEDICAL SOCIETY.

The Tri-State Medical Society of Iowa, Illinois and Missouri will meet in annual session in Dubuque, Iowa, April 5, 6 and 7, 1898. That the meeting will be a success is certain. Nearly all the physicians of Dubuque are interested in the society, and they will give the visiting brethren such a welcome as will warm their heart-strings.

It is expected that the largest part of the attendance will be drawn from Northern Iowa and Illinois, and from Minnesota and Wisconsin. This section of the country is noted for the intelligence of its physicians, who are broad-minded men, free from petty jealousies, and fully equipped for the scientific practice of medicine.

An interesting program is being prepared. Any member of the regular profession who wishes to read a paper will please forward the title to the Secretary, Dr. J. W. Fowler, of Dubuque, Iowa.

THE "CHUTMUCK SPECIAL."

All aboard for Denver. The Missouri Pacific Railway will run a magnificent special train from St. Louis to Denver and return early in June. The occasion of this is the meeting of the American Medical Association. The train will be known as the "Chutmuck Special" and will afford special accommodations for the wives of doctors and their friends. Due announcement of dates, etc., will be made in the JOURNAL, and other information can be obtained of Mr. H. C. Townsend, General Passenger and Ticket Agent, St. Louis.

The New Salt of Cinchona, Blennostasine.—The experience of the past two months has proved the value of this new drug. We have not had an opportunity of testing it upon any chronic hay fever cases, and must wait for word from some of our readers as to its value in this connection. There is nothing so far produced that anywhere near equals its action in acute coryzas—colds. A few doses decreases the secretion, relieves the weight and heaviness of the head, and the cold can generally be made to disappear in twenty-four to thirty-six hours. It is a vasomotor constrictor that is non-toxic and certain in its action. It is very gratifying, indeed, to witness the celerity of its action. Any of our readers who have not tried this remedy should do so. It is a permanent improvement in our materia medica.—Editorial in *Kansas City Medical Index*.

A System of Practical Medicine. By American Authors.—Edited by ALFRED LEE LOOMIS, M. D., Late Professor of Pathology and Practical Medicine in the New York University, and WILLIAM GILMAN THOMPSON, M. D., Professor of Medicine in the New York University. To be completed in four imperial octavo volumes, containing from 900 to 1000 pages each, fully illustrated in colors and in black. Volume III.: Diseases of the Alimentary Canal, Peritoneum, Liver and Gall-Bladder, Spleen, Pancreas and Thyroid Gland, Chronic Metal Poisoning, Alcoholism, Morphinism, Infectious Diseases Common to Man and Animals, Miscellaneous Subjects. For sale by subscription. Per volume, Cloth, $5.00; Leather, $6.00; Half Morocco, $7.00. Lea Brothers & Co., Publishers, Philadelphia and New York, 1898.

This great and representative system of practical medicine goes regularly and rapidly on towards completion. Of the four large volumes of which it will consist, the third is just at hand, covering a wide range of subjects. The corps of contributors numbers eighteen of the ablest authorities of America, and their articles may safely be consulted for a complete statement of each subject in its practical bearings according to the most modern knowledge. Full therapeutic directions form a feature of the *System*, and engravings and plates are introduced wherever they can be of service. As illustrative of these features the article on Cretinism and Myxœdema may be instanced, containing as it does many sets of serial photographs showing stages of these diseases and the improvement effected by the prescription of thyroid products according to the directions given. The work is one of the utmost service, not only to the general practitioner, but to the medical specialist as well. The fourth and final volume is in press for early issue.

William Harvey.—By D'ARCY POWER, F. S. A., F. R. C. S., England, Surgeon to the Victoria Hospital for Children, Chelsea. Duodecimo, 283. New York: Longmans, Green & Co., 1897.

Peace, it has been well said, has its victories no less than war. Foremost among the men who have gained these peaceful victories must be counted the masters of medicine, who spent themselves—often sacrificing health, fortune, and even reputation—in the endeavor to solve the Sphinx-riddles of nature for the benefit of mankind. Had these men devoted themselves to the discovery of means for the wholesale destruction of human life as they labored to find means of prolonging it, and making it happier and more effective, they would be reckoned among the chiefest glories of the countries of their birth. As it is, most of them are utterly

unknown, and even the most celebrated of them is to the average man little more than the shadow of a great name.

Yet Harvey, Jenner and Lister, grace Britannia's story far more than the warriors and statesmen whose deeds are sung by poets, and whose names are writ large on our national roll of fame. Seen in true perspective, Helmholtz is greater than Moltke, and Pasteur dwarfs Napoleon into insignificance. But while the conquerors with the sword whose passage is marked by devastation are chronicled by thousands of pens, the conquerors over death are for the most part *carent vate sacro.* Such records of their lives as exist are scattered about, mostly in the darkest corners of the Limbo of unread literature. Moreover, in these narratives, which are intended solely for students of the history of science, so much prominence is given to the man's work that the figure of the man himself is overshadowed and often entirely hidden.

The want of readable biographies of medical discoverers constitutes a gap in our literature which it is the object of the present series to fill. The masters of medicine will be shown in their habit as they lived, and in the social and intellectual environment in which they moved and had their being. At the same time the general scope of their work, the difficulties which they had to encounter, and the general results of their discoveries will be set forth in sufficient detail to enable the reader to understand what they accomplished for science and for humanity.

It is not always those who bulk largest in the public eye that are the real masters of medicine. Accordingly, it is not proposed to include in the series men who were merely fashionable physicians or successful surgeons, but only such as were, in the strictest sense, master builders of the temple of hygiea.

The list, as at present arranged, includes the following: John Hunter, who laid the foundations of scientific surgery; William Harvey, the discoverer of the circulation of the blood; Edward Jenner, the discoverer of vaccination, who even in his own lifetime saved more lives than Napoleon destroyed; Louis Pasteur, who revolutionized medicine and surgery by the far-reaching concept of microbic agency; Sir James Simpson, the discoverer of chloroform; Hermann von Helmholtz, whose work in the physiological physics of sight and hearing is of fundamental character; Andreas Vesalius, the founder of scientific anatomy; Albert von Haller, the founder of experimental physiology; Thomas Sydenham, the English Hippocrates, who taught men to look at disease with their own eyes rather than through the spectacles of authority; John Conolly, who introduced the non-restraint system in the treatment of insanity; Edmund Alexander Parkes, whose work in the department of military hygiene was of national importance; Sir Charles Bell, discoverer of the double function of the nerves, a discovery which ranks with that of Harvey as one of the greatest in physiology; Sir Benjamin Brodie, one of those who most largely helped to transform surgery from a handicraft to a science; and William Stokes, the philosophical physician of Dublin. Others will be announced in due course.

American Year-Book of Medicine and Surgery.—A Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, Drawn from Journals, Monographs, and Text-Books, of the Leading American and Foreign Authors and Investigators. Collected and Arranged by Eminent American Specialists and Teachers. Under the Editorial Charge of GEORGE M. GOULD, M. D. In one Imperial Octavo Volume of 1070 Pages, Uniform in Size With the "American Text-Book" Series. Profusely Illustrated. Prices: Cloth, $6.50 net; Half Morocco, $7.50 net. W. B. Saunders, Publisher, 925 Walnut street, Philadelphia.

The design of this work is to give in a compact form an epitome of the new and progressive medical truths or suggestions published during the preceding year. A work that places before the physician in convenient form an epitomization of this literature by persons competent to pronounce upon the value of a discovery or of a method of treatment cannot but command his highest appreciation. It is this critical and judicial function that is assumed by the editorial staff of Saunders' "American Year-Book of Medicine and Surgery," in reviewing not only recent monographs and the contributions to American journals, but also the methods and discoveries reported in the leading medical journals of Europe.

The volume is a whole library in itself. It is of the greatest value to the medical profession.

The Diseases and Injuries of the Conjunctiva.—Especially the So-Called Granular Lids. By JOHN H. THOMPSON, M. D., Professor of Ophthalmology and Otology in the Kansas City Medical College. Duodecimo, pp. 216. Kansas City, Mo.: Hudson-Kimberly Publishing Co., 1897.

This is the best book on diseases of the conjunctiva with which we are acquainted. It is modern, the language is clear, and the book is practical. The work is valuable alike to the specialist, the teacher in the medical college, and the country doctor. We hope Doctor Thompson's book will meet with a large sale.

An Epitome of the History of Medicine.—By ROSWELL PARK, A. M., M. D., Based Upon a Course of Lectures Delivered in the University of Buffalo. Illustrated. The F. A. Davis Co., Philadelphia, 1897.

A knowledge of the history of medicine is essential to every physician, and is of the greatest value to the student about to enter upon the study of his profession. In the work before us, the talented author relates the history of medicine, from the earliest times up to this century, in a graphic and most interesting manner. As we read of the great men of medicine and the benefactions which they bestowed upon humanity, we are inclined to look with greater respect upon our vocation, and are more than ever assured that it is indeed a noble calling. Professor Park's book is justly called an Epitome. It is not more. It has all of the advantages and, we may add, the faults, which are expected in so small a work upon so great a subject.

A System of Applied Therapeutics.—By WM. F. WAUGH, A. M., M. D., Professor of Practice and Clinical Medicine, Illinois Medical College; Chief Physician to the Hyde Park Sanatorium; Editor of the *Alkaloidal Clinic;* Fellow of the Chicago Academy of Medicine; Member of the Chicago Medical Society, Pathological Society, Physicians' Club, Illinois State Medical Society, Société d'Electrotherapie de France; Author of "Outlines of Dosimetry, and Manual of Alkaloidal Medication," Etc.

The work is published by the Alkaloidal Clinic Publishing Co., Chicago, Ill.; price, $5.00, in half morocco. The book contains over 500 pages. Diseases are arranged alphabetically, each one being treated of in a short, plain article, the treatment alone being taken up. While the use of the alkaloids is the principal feature of the work, there are many other good suggestions, and the work fills a valuable place in the medical library.

Doctor Waugh is eminently a practical man, and his book will be found to be filled with useful hints and methods of treatment.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections, in Photo-Lithochromes from Models in the Museum of the St. Louis Hospital, Paris. With Explanatory Woodcuts and Text, by ERNEST BESNIER, Physician to the St. Louis Hospital, etc.; TENNESON, Physician to the St. Louis Hospital; HALLOPEAU, Member of the Academy of Medicine, etc.; FOURNIER, Professor of the Faculty of Medicine, etc., and DU CASTEL, Physician to the St. Louis Hospital. With the Co-operation of HENRI FEULARD, Curator of the Museum, and LEON JACQUET, Secretary of the Dermatological Society of France. Edited and annotated by J. J. PRINGLE, M. B., F. R. C. P., Assistant Physician to and Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. Parts XI. and XII.; pp. 245 to 302. London: F. J. Rebman. Philadelphia: W. B. Saunders, 1897. St. Louis: Lewis S. Matthews & Co., 714 Pine street. Price, $3.00 per part.

The two parts before us conclude this really beautiful and unapproached Atlas. Whilst we are pleased to note its successful completion, we are also sorry that it was not made to embrace more parts. What has appeared was so good that we would fain have liked to see it continue. However, we live in the hopes that the enterprising publishers have met with sufficient success to justify them in issuing a second series, which would certainly meet with as large a sale as the present one, or even larger, for it must be borne in mind that the subject of cutaneous medicine and syphilology is daily occupying more of the attention of physicians who are beginning to appreciate that these affections possess a sufficient degree of importance to merit serious attention.

Parts XI. and XII. contain five plates each, making the total number fifty. In the former the plates are all most excellent and life-like. The subjects represented are hydroic erythema of the hands and lips, the pigmentary syphilide, molluscum contagiosum of the vulva in a syphilitic subject, vascular nevus verrucosus of the leg, and pediculosis vestimentorum, with pigmentation. Part XI. is no less interesting, and the plates

are all exceptionally good. Hypertrophic chancre of the nostril, diphtheroid chancre of the tonsil, crustaceous chancre of the lip, erosive chancre of the lip, ulcerative chancre of the tongue, are all extremely life-like. The plate showing xerodermia pigmentosum gives a rather unusual form of the disease, as also that in which impetigo contagiosa is seen, which, at first blush, might be mistaken for favus. Urticaria pigmentosa with atrophic spots arranged in bands is very instructive and deserving of close study. These plates terminate the Atlas.

As a work of medical art it has gained for itself a permanent place in the annals of medicine, and will ever remain as one of the monuments erected to French dermatology. As a reliable work of reference and guide it occupies a position unsurpassed by any other Atlas, and it shall certainly serve as a criterion by which others shall be judged. We certainly advise those who have not procured a copy of this work to do so, for we have no doubt that the edition will be exhausted ere long. No one who has ever seen it but desired to become the possessor of a copy, and made it an object to do so. It is not the work for a moment, or a day, but one for a lifetime, and then to be handed down. The pictures will always remain true and life-like, no matter what mutations, theories and opinions may undergo. In fact, it is a work for all time.

OHMANN-DUMESNIL.

BOOKS RECEIVED.

The Psychology of Suggestion.—A Research into the Subconscious Nature of Man and Society. By BORIS SIDIS, M. A., Ph.D., Associate in Psychology at the Pathological Institute of the New York State Hospitals. With an introduction by PROF. WILLIAM JAMES, of Harvard University. Octavo, pp. x.–386. New York: D. Appleton & Co., 1898.

The Doctor's Window.—Poems by the Doctor, for the Doctor, and about the Doctor. By INA RUSSELLE WARREN. With an Introduction by WILLIAM PEPPER, M. D. Octavo, pp. 288. Buffalo: Charles Wells Moulton, 1898.

Sir James Young Simpson and Chloroform (1811–1870).—By DR. LAING GORDON. Octavo, pp. 233. New York: Longmans, Green & Co., 1898.

Hugh Wynne, Free Quaker, Sometime Brevet Lieutenant-Colonel on the Staff of his Excellency, George Washington. By S. WEIR MITCHELL, M. D., L.L. D. (Harvard and Edinburgh). New York: The Century Co., 1898.

Rubaiyat of Doc Sifers.—By JAMES WHITCOMB RILEY. Illustrated by C. M. RELYEA. Octavo, pp. cv. New York: The Century Co., 1898.

Orthopedic Surgery.—By JAMES E. MOORE, M. D., Professor of Orthopedic and of Clinical Surgery in the College of Medicine of the University of Minnesota. Octavo, pp. 354. Philadelphia: W. B. Saunders, 925 Walnut street, 1898. Price, $2.50 net.

ABSTRACTS.

Remember What to Do for Chloroform Emergencies.—Some time ago we called attention to a case in which Dr. Hunter McGuire saved the life of a patient under chloroform on the operating table by pushing forward the rami of the lower jaw, thus lifting the base of the tongue from the laryngeal opening. More frequently is it sufficient with forceps to keep the tongue well out of the mouth for awhile. But the surgeon should always remember other accidents of anæsthesia, and be ready for the emergency. A few days ago, while Dr. George Ross was operating in the Virginia Hospital, it was observed that the patient suddenly stopped breathing, and yet without indication of obstruction to the air-passages. The pupils almost as suddenly became widely dilated and the heart's action rapidly weakened. In less than a minute, pulsations had become exceedingly feeble—in fact, almost gone. Promptly the patient's body was lowered from the table, his head allowed to swing for awhile, tongue drawn out, artificial respiration begun, while nitrite of amyl pearls were crushed in a napkin and the fumes caused to be inhaled by the patient. Recovery prompt. Patient replaced on table; operation finished under further use of chloroform without untoward circumstance. Of course, there is nothing new in this resort to the Nélaton position, the use of nitrite of amyl, the tongue use of forceps, etc. We make note of the cases simply to remind the surgeon, in planning his operation, never to fail to have ready for immediate use amyl nitrite and other restoratives. Dr. Hunter McGuire, in his clinical lectures, while the patient is being anæsthetized, frequently calls attention to the dangers of anæsthetics, how to recognize their earliest untoward action, and warns the class to be on the lookout for accidents, and to be always ready to meet the emergency promptly.—*Exchange.*

Medical Paternity.—Who fathers all these absurd and ridiculous statements that appear in the medical press? It is fortunate for the journals that they are not responsible, else they would suffer; it is doubly fortunate for the profession that the great body of medical men are so well grounded in medicine that the insane suggestions of would-be instructors are passed by with a smile, yet undoubtedly some are influenced to try the measures advocated.—*Medical Summary.*

The Value of Tetanus Antitoxin.—Experiments upon animals have abundantly shown that Behring's tetanus antitoxin has a curative power

in the treatment of tetanus, but the clinical evidence in its favor is somewhat meager. Indeed, despite the work which has been done and published upon the subject of this immunizing serum, it has still to make its reputation. Doubtless many causes have contributed to this result, and it may be, after all, that the serum is not at fault. There is a general consensus of opinion among those who have experimented with the tetanus antitoxin upon animals that it has an immunizing power, but there is some want of agreement respecting its efficacy after the symptoms of tetanus have actually commenced. Some observers have failed to check the progress of tetanus, artificially produced in animals, by the antitoxin, after the full development of the symptoms. Others, on the other hand, have shown that they have arrested the disease by the use of the serum. Perhaps the most extensive series of experiments of this kind which has been undertaken was that of Knorr, of Marburg. This observer has shown, among other things, that much depends upon the time at which the immunizing serum is used in cases of tetanus. That is to say, he demonstrated unequivocally that guinea-pigs survived repeated injections of tetanus toxin to a total of many times the minimal lethal dose, provided that the serum treatment was commenced sufficiently early. A writer in a recent number of the *Inter-colonial Medical Journal of Australasia*, while discussing this point, has mentioned the following rules as useful in these cases, namely. (1) That the serum should be injected immediately, or as soon as possible after the first appearance of the symptoms of tetanus. (2) The dose should be large, and until the symptoms improve should be repeated daily; (3) The serum should be high and of definitely ascertained antitoxin strength. This latter, of course, is a most important detail. It is well known that there is no standard strength of the antitoxin, and it is quite probable that the varying results obtained by its use, as well the failures which have been recorded of it, have been largely dependent upon a want of uniformity in the strength of the preparation. Until a routine observance is practiced of the principles which should obtain in the use of this remedy, good results are never likely to follow. The cases of tetanus are probably of three classes: those which may recover spontaneously, those which will terminate fatally in spite of any treatment, and those which may be saved by the serum, which, except for its use, would not recover. Clinically, it is, of course, impossible at the first to distinguish between these three forms. But, in any case, it would seem to have been firmly established that, if the antitoxic serum is to do any good in tetanus, it must be administered as early in the development of the disease as possible.—*Medical Press and Circular.*

Chalybeate Purgatives.—The *New York Medical Journal* (September 25, 1897), quotes Dr. C. E. Williams as suggesting:

R	Ferratin	2 drachms.
	Sodium bicarb	2 "
	Powd. rhubarb	4 "
	Oil of fennel	30 drops.
M.	Dose, a teaspoonful.	

At the Twelfth International Medical Congress, in the Section of Surgery, August 23, 1897, Professor Credé, of Dresden, reported in substance as follows: (*Deutsche Medicinische Wochenschrift*, October 28, 1897, p. 211.) After long experimentation he had found that the citrate of silver best fulfilled the conditions required of an antiseptic for the treatment of wounds. His opinions and the results that he has obtained by the method had been published, and were well known. Credé then considered the use of silver in certain infectious diseases. The fact that the citrate of silver greatly diluted is soluble in the serum of the blood and is non-poisonous, suggested to him the possibility of its use for the general disinfection of the body. The subcutaneous injection of 0.5 gram (7½ grains) of lactate of silver occasioned aseptic necrosis of tissue; hence silver could not be used in that form. After overcoming many difficulties Credé succeeded in obtaining a metallic silver preparation which was permanently soluble, both in water and in albuminous fluids. When this preparation is inuncted in the form of a salve for from fifteen to thirty minutes, it gets into the lymphatic channels and circulates dissolved in the body. In sterile lymph and sterile blood it remains in the condition of metallic silver. In the presence of pathogenic germs, or of toxines, it enters into some as yet unknown combinations, and acts either as a bactericide or as an anti-toxic agent. The use of the silver preparation causes no local changes. Credé and the physicians associated with him treated over one hundred cases affected with the most varied septic diseases with the remedy. The first inunction was made in the evening, and the second upon the following morning, and no other measures were employed during this time. The amount of the salve used in the adult was, as a rule, three grams (45 grains); for boys, two grams (30 grains); and for little children, one gram (15 grains). The inunctions were practiced upon a part of the body far removed from the site of the disease. Lymphangites, phlegmons, septicæmias, phlegmonous anginas, and septic complications of scarlatina and diphtheria were treated. In all the cases a remarkably favorable effect was apparent in from five to thirty hours. The general condition improved; the fever fell within twenty-four hours; and rapid retrogression of the septic process set in. Almost hopeless cases rapidly improved. In cases of erysipelas the mixed septic infection got well, though the skin lesion persisted. Credé believes that the preparation is a remedy of the very greatest importance, being capable of disinfecting the entire body; and affirms that it is one that has never failed him in septic cases.

I have practiced medicine here twenty-eight years, and must say that antibrule gives better results than anything of the kind I have ever used. It should be in general use. J. A. KNIGHT, M. D.

Eatonton, Georgia, February 3, 1898.

PUBLISHER'S DESK.

HYDROZONE ANG GLYCOZONE IN THE TREATMENT OF GONORRHŒA.

PRESCOTT, ARIZONA, August 16, 1897.

To the Editor of the New York Medical Journal:

SIR—My attention has been attracted to an article published in your journal for July 3d, by Dr. J. A. Silverman, of Butte, Montana. The writer states that no antiseptic has been discovered that will destroy the gonococcus without doing injury to the mucous membrane. As I presume that he is open to conviction, I submit to you for publication the following report of three cases which I have successfully treated during the last few months with hydrozone and glycozone, which I consider not only harmless but the most powerful healing agents that I have ever used in my practice of thirty-five years.

CASE I.—A man called on me on June 20th, with gonorrhœa of four weeks' duration, with profuse discharge, micturition painful, and an acute burning sensation along the entire urethral tract. Pus sacs had formed in the canal, the meatus was inflamed, and the gonococcus was active, as determined by microscopical examination. I prescribed injections of one part of hydrozone and ten parts of sterilized lukewarm water, an ounce for each injection, four times daily. After two days I reduced the proportion to one part of hydrozone and fifteen parts of lukewarm water, and I directed glycozone mixed with an equal amount of glycerin pure to be injected on his going to bed. The diet was not restricted, but no stimulants were permitted. In two days no gonococcus could be detected. The discharge was lessened, the pain and difficulty in micturition had ceased, and in twelve days the patient was well. Continence was imposed for two weeks. Doses of bromide of potassium and bicarbonate of sodium were administered from time to time in order to make the urine alkaline and quiet the patient.

CASE II.—A married man had contracted blennorrhœa from a woman who had the whites. The same treatment was ordered, and with such satisfaction that the woman also was brought for examination and treatment. Result: A cure in each case within three weeks.

CASE III.—A man, fifty years old, contracted gonorrhœa from a woman of the town. As the patient lived in the country, twenty miles out, no treatment was given until ten days after infection. Aggravated symptoms of gonorrhœa were present, and there was chordee every night; the patient, to use his own expression, was "plumb wild." The hydrozone injections were ordered, one part to twenty, owing to the great sensitiveness of the urethra and the possibility of orchitis if a stronger injection was used, as there was a slight swelling of the testicles. The glycozone, diluted with equal parts of pure glycerin, was ordered at night. I also gave glycozone internally in medicinal doses, to allay a gastric disturbance due to nervousness. In this case the treatment was contined for twenty-five days. I sent my patient to his cattle ranch happy.

WARREN E. DAY, M. D.

The reason why Hagee's cordial gives results is that it contains all the active constituents of cod-liver oil, derived from the liver of the cod. It also contains hypophosphites of lime and soda that prevent waste of tissue and promote constructive tissue metamorphosis.

Hot Air Arm and Leg Bath.—G. H. Blech, A. B., M. D., of Detroit, Mich., in his clinical report of two pages as published in the *Journal of the American Medical Association* of October 9, 1897, reports the following cases successfully treated by him with the hot air arm and leg bath made by Frank S. Betz & Co., 78 State street, Chicago, Ill.:

Mr. A. F., aged 36. Had rheumatism two years. May 11, duration 18 minutes; May 12, duration 19 minutes; May 13, duration 21 minutes; May 14, duration 24 minutes; May 15, duration 26 minutes; May 16, duration 21 minutes; May 19, duration 30 minutes.

Mrs. A. F., aged 36. Had rheumatism five years. May 13, duration 18 minutes; May 14, duration 20 minutes; May 15, duration 22 minutes; May 16, duration 24 minutes; May 17, duration 26 minutes; May 19, duration 29 minutes; May 21, duration 22 minutes.

Mr. E. C., aged 29. Polyarthritis chronica two and a half years. May 12, duration 15 minutes; May 13, duration 17 minutes; May 14, duration 22 minutes; May 16, duration 29 minutes; May 18, duration 30 minutes.

Mr. N. B. Chronic muscular rheumatism three and one-half years. May 12, duration 10 minutes; May 13, duration 12 minutes; May 15, duration 15 minutes; May 16, duration 18 minutes; May 21, duration 22 minutes; May 22, duration 29 minutes; May 23, duration 30 minutes.

Miss E. T. My assistant, aged 24. Chronic rheumatism of muscles of arms one and one-half years. May 11, duration 18 minutes, temperature 206° F.; May 12, duration 19 minutes, temperature 209° F.; May 13, duration 20 minutes, temperature 211° F.; May 14, duration 22 minutes, temperature 215° F.; May 17, duration 30 minutes, temperature 220° F.

Mrs. F. D. Polyarthritis chronica six years; aged 38. May 10, duration 15 minutes, temperature 201° F.; May 11, duration 20 minutes, temperature 202° F.; May 12, duration 19 minutes, temperature 205° F.; May 14, duration 21 minutes, temperature 209° F.; May 19, duration 24 minutes, temperature 212° F.; May 21, duration 26 minutes, temperature 217° F.

Dr. G. B. Writer. Polyarthritis subacuta; pleurodynia a few weeks. May 2, duration 20 minutes, temperature 205° F.; May 3, duration 22 minutes, temperature 208° F.; May 4, duration 25 minutes, temperature 204° F.; May 6, duration 30 minutes, temperature 221° F.

Their advertisement appears in this journal.

A Practical Patient.—A physician calling one day on one of his patients who was afflicted with the gout, found, to his surprise, the disease had gone, and the patient rejoicing in his recovery, over a bottle of wine. "Come along, doctor," exclaimed the valetudinarian, "you are just in time to taste this bottle of Madeira; it is the first of a pipe that has just been broached." "Ah!" replied the doctor, "these pipes of Madeira will never do; they are the cause of all your suffering." Well, then, rejoined the gay incurable, "fill up your glass, for now that we have found out the cause, the sooner we get rid of it the better."—*The Sanitarian.*

Grippe.—For grippe, as for all ailments which exist endemically or epidemically, the most diverse methods of treatment and medication have been proposed, and a vast number of medicines recommended, but few of which possess any real value. No remedy has had so much success or has proven to be of such true efficacy, both for the prompt and thorough relief of grippe and the prevention of complications, as tongaline liquid, in doses of a teaspoonful, or a tongaline and quinine tablet, either to be taken at short intervals and washed down with plenty of hot water. A glass or two of hot water between the doses will further stimulate the action of the medicine.

Grippe invariably renders the stomach irritable and the nerves sensitive, so in order to avoid any disturbing effects from internal medication, the inner parts of the thighs and the abdominal surfaces should be first sponged with alcohol, then with tongaline liquid and hot cloths saturated with the remedy, held in apposition by oiled silk bandages, heat being applied by hot water bag or other convenient method to facilitate absorption.

In like manner tongaline liquid may be given externally by the aid of electricity.

It is positively remarkable how quickly and thoroughly the grippe is eradicated and a complete cure is affected by the use of tongaline as mentioned.

Sanmetto in Incontinence of Urine.—I used sanmetto in a case of a lady forty years of age, who could not retain her urine more than one hour for years. She had been under treatment before, without any remarkable result. I put her on teaspoonful doses of sanmetto four times daily, and her improvement was very marked, and she is now practically cured. I desire to keep sanmetto on hand, as there is nothing better to fill its place in such cases. FRED. A. GOEDECKE, M. D.

Milwaukee, Wis.

Various chronic affections of the nerves of an inflammatory character, as neuritis, perineuritis, multiple neuritis, sciatica are secondary mostly to such acute diseases as rheumatism and syphilis. To treat these affections by sedatives merely, is irrational; alteratives and absorbents being indicated, although the physician must be careful in the selection of drugs, so as to cause no other derangements (like iodism from potass. iod.) Henry's tri-iodides will prove themselves of great value and will not be followed by disagreeable symptoms of any kind.

Neurectomy for Tic-Douloureux.—Bernays' "Report of a Surgical Clinic," complimentary to the Members of the Mississippi Valley Medical Association, contains the following, in reference to his patient's condition and treatment before neurectomy for tic-douloureux was decided upon:

"CASE V.—The patient, æt. 50, white, female. Family history: Has one sister who suffered from emotional insanity; otherwise the family history is good. Previous health excellent. The present trouble began with

a severe neuralgic toothache, localized in the right lower molars. Paroxysms of pain were of daily occurrence, and most severe in the mornings about breakfast time. The pain subsided temporarily whenever the teeth were pressed firmly together or upon any substance held between them, but only to return when the pressure was withdrawn. The presence of anything cold in the mouth immediately produced the most exquisite pain; moderate heat produced a soothing effect. After two months, the pain became continuous, and four molars were extracted without in any way relieving it. On the contrary, the pain increased in severity until October, when it ceased entirely for a period of two weeks, and then returned as severely as before. Another tooth was sacrificed, but without relief; the pain became continuous until last June, when it again subsided for a period of six weeks. A recurrence then took place, together with an involvement of the parts supplied by the second branch of the fifth nerve. Pain has been constant until the operation. She had strenuously avoided the use of narcotics, but during the more active periods of pain, antikamnia in ten grain doses was found to be an efficacious obtunder." After describing the neurectomy, Prof. Bernays says: "Eight weeks have now elapsed since the operation, and no recurrence of the trouble has taken place."

The Medical Excursion in June to Denver and Salt Lake City.—The American Medical Association meets at Denver, June 7th to 10th. One of the features of the gathering will be an excursion from Denver to Salt Lake City and return via the D. & R. G., Colorado Midland and Rio Grande Western Rys., through the "Heart of the Rockies," furnishing a splendid opportunity to view the most magnificent scenery on the American continent. Salt Lake City is an ideal summer resort, and the bathing at Saltair in the Great Salt Lake—inland salt sea, nearly a mile above the sea level—is superb in June. There are more attractions in and about Salt Lake City than any place in the world. Later notice will appear in this publication, giving rates for this excursion and all details. In the meantime send to F. A. Wadleigh, G. P. A., Rio Grande Western Ry., Salt Lake City, for copy of pamphlet on Salt Lake City and the Rocky Mountains.

Substitution.—"There is possibly no man whose reputation can be more easily injured than a practicing physician's. The doctor's success depends entirely on his reputation for moral rectitude and professional knowledge, and for this reason he should be more than scrupulously careful in the administration of medicine. Medical men are possibly the only profession who place the custody of their implements and tools in the hands of others over whom they have practically no direction. The physician may diagnose ever so carefully, or prescribe ever so wisely, yet the moment that prescription leaves his hands the welfare of his patient is beyond his control. He may unite the skill of Osler, Pepper, and Loomis in diagnosis, of Brunton, Wood, and Hare in therapeutics, but it is all prostrate before the enlightened intelligence of some perfumed drug clerk. There are many noble leaders in pharmacy who have striven much to raise the drug trade to the dignity of a profession, and many of them have succeeded;

but a chain is just as strong as its weakest link. The morale of a profession is at the mercy of its weakest member, and in the profession of pharmacy these are notoriously the substitutors. The substitutor is about the basest production of modern commerce. He has no respect for his own good name; his only interest is in his profits. To make a dime on a prescription he first defrauds the manufacturer who puts up a recognized and well-known article, robbing him of his good name by substituting inferior goods. He then robs the dying man because he does not give him that to which he is entitled. He steals from the physician his good name because he has given a worthless drug. The patient has not improved, and the physician's reputation has suffered in consequence. The man who substitutes in any manner, shape, or form, can only be held in the eyes of the physician, the patient, and the manufacturer, as the meanest and most contemptible of sneak thieves."—Extract from editorial in *Dominion Medical Monthly*, Toronto, Canada, for February, 1897.

Opium in Diabetes.—Henry S. Stark, A. M., M. D., in a paper entitled "Diabetes Mellitus and Its Treatment, Based on Clinical Experience," which he read before the Academy of Medicine in New York (*Medical Record*, December 11, 1897) discusses at length the drugs employed by him and their noted action, and says: "I have employed almost every drug advocated and have finally discarded all save opium and its alkaloids."

In the discussion following the reading of this paper, Dr. William H. Thomson said: "Opiates should be the last resort. The preparations of opium should be used in diabetes, not as curative agents, but rather as a means of smoothing the path to the grave." We agree with Dr. Thomson, and no doubt in many cases the indiscriminate use of opium in the treatment of this disease has resulted in more harm than good.

We have used cod-liver oil, iron, arsenic, and phosphorous, with fair results. Splendid results have been obtained with eulexine and a moderate diet. Many of our best physicians employ it, under all circumstances, in the treatment of their diabetic patients. With this drug it is said a liberal diet may be allowed. Such being the case, one of the most discouraging features encountered by us in the treatment of this disease has been overcome.

A Recognition of Merit.—For the first time in my experience I write a testimonial in favor of a proprietary medicine. I do it now only from a sense of recognizing merit where merit is due. I have devoted my attention exclusively to rectal conditions for a quarter of a century, and have constructed an array of antagonistic and aggressive remedial forces that only long practice can establish as reliable. I began with resinol, about two years ago, and subjected it to the various tests that its nature might suggest, and have now so perfected or defined its sphere of action that it is becoming more and more invaluable each successive week. I use about ten ounces daily. Its antiphlogistic and antiseptic qualities appeal to me as its leading features, and I have greatly broadened my reputation by its magical action in strangulated hemorrhoids and acute proctitis. Take a nervous, sensitive woman almost insane from the agonies of an inflamed rectum, then fill a

hollow suppository with the resinol, introducing it carefully, and in ten minutes the pain vanishes and one more accent has been added to a reputation. Of course, the diagnosis must be correct to prove the advantage of this statement, as so many ideas go astray from want of proper differentiation. In destroying hemorrhoidal tumors as I do, I can reduce the time one-half, being able to double the force of operative means on account of obviating inflammation and pain by using this remedy in conjunction with the destructive measures. If physicians in general practice would employ resinol in the frequent cases that come under their care as an "attack of piles," the more ancient methods would become devoid of interest. I trust you will pardon this intrusion, as I could not help it, my enthusiasm impelling me to the action. Very sincerely yours,

New York City. EUGENE F. HOYT, M. D.

GAROFEN.

[Condensed from an article in the *Medical Summary*, by Dr. Ben Brodnax, Brodnax, La. Name of product changed from Gurania to Garofen.]

After trying a preparation called garofen, I thought some of my brethren would like to know of a pleasant pain reliever. Some time ago I received a sample of the remedy from the Phénique Chemical Co., of St. Louis, Mo., but as I had a supply of other material, and not many cases requiring the effects, I put off testing it until I had a case of sick headache. I watched the effects of one tablet every half hour, with the results that the second tablet gave relief, and after the third the patient slept well. There was no diaphoretic effect from it, and no after-effects that were unpleasant. The lady woke up as from a natural sleep. In a case of uterine pain from suppressed menstruation, the effects were immediate; and after five tablets—one every half hour—there was perfect ease. I had used macrotis (B. Keith & Co.'s concentrated tincture), for a day or two, and continued the same for several days after the flow commenced. I have also used gárofen in several cases of measles in people over forty years old, with the effect of quiet sleep and much comfort to the patients. I cannot but think it is the hypnotic which will take the place of morphine, acetanilid and its many compounds and mixtures. It answers a splendid purpose where you desire to allay pain without any sweat, or any of the effects of heart action with which the coal-tar preparations are charged. As a quieter of pain, pure and simple, I have found nothing superior to it outside of a hypodermic and morphine. I dread the use of morphine among my clientele, and have for several years tried everything that would in any way supplant it. This preparation, I believe, comes as near to it as any that I have used.

Garofen.—Cut this out and mail to the Phénique Chemical Co., of St. Louis, Mo., and you will receive, free of charge, sample, literature and reports on the new vegetable analgesic and antipyretic that has come to take the place of morphine, acetanilid and its many compounds. Gárofen contains no coal-tar products, nor opium or its alkaloids in any form. 41

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CLINICAL LECTURE.

MEDICAL CLINIC.[1]

By FRANCIS DELAFIELD, M. D., of New York, N. Y.,
Attending Physician, Roosevelt Hospital; Consulting Physician, Bellevue Hospital; etc.

CASE 1.—Man, thirty-seven years old, admitted to the hospital November 24th. His illness dated nine days before admission to the hospital. He complained of being sick at his stomach, headache and diarrhœa; also complained of nausea, which lasted for several days and was accompanied with occasional vomiting. The diarrhœa continued after admission; he averaged about six yellow movements each day. He also had considerable sore throat when he came into the hospital. He was pale, much emaciated, his tongue was coated, his temperature 101°, pulse 106, and respirations 20; his urine had a specific gravity of 1025 and contained no albumin. The case was an ordinary case of typhoid fever which had lasted nine days before admission into the hospital. Please take note of this man's chart. He came in during his second week of typhoid fever; you note that temperature has not been high enough since admission to call for tubbing or even for antipyretics. This, gentlemen, is a case of typhoid fever treated without tubbing. The morning temper-

[1] Held at Roosevelt Hospital, New York, January 3, 1898, and reported expressly for the TRI-STATE MEDICAL JOURNAL AND PRACTITIONER.

ature is close to 99° in this mild type, and it is not necessary to do anything for it.

We are now at the end of the fifth week, and apparently the typhoid is over; *i. e.*, the patient is without temperature and is getting solid food.

This, gentlemen, is an example of a mild attack of typhoid fever of three weeks' duration, and ending in convalescence without temperature and getting solid food; then followed an intermission, which lasted nearly one week. Then there apparently started a fresh attack, the same as in the mild form, which ran for one week. To-day there is a temperature nearly normal and an end of the relapse. This case was so mild that it required no treatment; there was a regular intermission and a regular relapse. The relapse lasted one week. The man now is fairly convalescent.

CASE 2.—Man, twenty-five years old, admitted to the hospital on the 28th of November. He was well until three weeks ago, when he had a chill followed by a sore throat; he felt weak and indisposed to make exertion. Ten days ago he felt so sick that he had to go to bed. Here there was a prodromic period of two weeks, dating from the day that the patient took to his bed; this is the proper way of calculating, otherwise it would seem to be too protracted a period. This history is the common history of typhoid fever. He went to bed with vomiting, abdominal pain, diarrhœa and epistaxis. There was some emaciation, dry tongue, dicrotic pulse, temperature 101.8°; some eruption on the lower part of the chest. The urine had a specific gravity of 1020, with a trace of albumin. Now, gentlemen, please notice this man's chart. On the eleventh day of the disease he came into the hospital; he had higher temperature than the other patient had. It was above 104°, and this man was treated with tub bathing the day after he came into the hospital. From the eleventh day of the disease to the twenty-first the patient was given a tubbing whenever the temperature went above 103°. There were some days when it was not necessary to tub him. The temperature responded to the tubbing, as shown by the chart, especially in the third week, when he got the most of his tubs. This up-and-down appearance of the chart shows the effect of the tubbing.

This case was not a mild one, but a fairly well-marked one of the disease, which required tubbing, off and on, during the period from the second to the fourth week and during the beginning of the fifth week. Then after that the temperature no longer required tubbing and the man is getting better. This took him into the fifth week. Now, notice this chart: up to the present time this patient's temperature is not normal; here he is at the end of the seventh week, although sitting up, his chart shows an afternoon temperature only just getting below 100°. It has been as high as 102° during the sixth and seventh week.

This is an example of a man having a post-typhoidal fever. This man has had his typhoid fever, lasting a certain length of time, running its course, and, properly speaking, at an end; yet he has an afternoon rise of temperature. This is post-typhoidal. It is important to recognize this condition, in order that the management of the feeding may be practical. This patient has been getting solid food since the twenty-fourth day of the disease.

Here are two ways in which typhoid fever shows itself:

First.—Typhoid fever with intermissions and relapses.

Second.—Typhoid fever which apparently runs its course and followed by afternoon rise of temperature.

Here is another temperature chart of a case where the disease terminated fatally. This will show you another way in which the disease may be protracted. The patient was a girl, who came into the hospital on the fourth day of the disease. She was tubbed, and you can here see the up-and-down temperature marking the tubbing. To this procedure she responded pretty well. There was some bleeding from the bowels. This represents a fairly well-marked case of typhoid fever requiring tubbing. I thought she would get well, but at the end of the third week the temperature went up and remained up until she died at the beginning of the fifth week. That is another way in which typhoid fever can be protracted. Here you have a case which goes on to the second, third or fourth week without intermissions, without a relapse, but a sort of letting-up of the fever, followed by fresh infection. In this case the patients may be worse off than in the first instance; they are often more severely ill. Some cases may last twelve, fifteen, or even sixteen weeks without any intermissions, without any relapses, but with fever going on. If you will notice this chart, there is a sort of effort towards recovery at the end of each week.

These are three ordinary cases of typhoid fever which are protracted, and it is important to distinguish between them. We have here, then, to consider three conditions:

First.—Case of true intermissions and true relapses.

Second.—Case with afternoon fever, which is not typhoid fever.

Third.—Case of true typhoid, lasting an unusual period of time.

In many of these cases at the end of three weeks there is a beginning improvement; then, at the end of a week, the temperature runs up again. In nearly all these cases all physicians are getting more and more of the opinion that the emaciation and loss of strength are not due wholly to the typhoid fever poison and to the rise of temperature, but that it is due to the want of nutrition. An ordinary case of typhoid fever is on a milk diet for about four weeks and does well; but if this diet be continued for twelve weeks, this is insufficient for the patient's nourishment. A great many physicians are becoming more and more bold as to when the patient should get solid food and so prevent them running down. It certainly is embarrassing to have the disease finished and later have the patient die from exhaustion. As a practical consequence, most of us are getting bolder and bolder and disregard the thermometer, and go by the patient's tongue, bowels, etc., and not by the thermometer. Now, take patients who have true intermissions and true relapses. When you get intermissions you do not hesitate to give solid food so long as the intermission lasts, and you give it from the first day of the intermission. That is right; give solid food during the intermission. When the relapse comes on, then go back to the milk diet, and so place the patient in a better condition to bear the relapse.

Now, supposing that you have one of those long cases of post-typhoidal fever. In these patients, if you let them run on for four weeks on a milk diet, for this is their usual duration, we often find that they con-

tinue to have afternoon temperature, even running up to 102, 101, or 100 degrees, and in spite of that we find the patient has a clean tongue, a good eye and a hungry face, and asks for something to eat; here we should give solid food, in spite of the afternoon temperature. If now the patient shows hunger and asks to set up, with afternoon fever, let him set up and you will notice improvement; he will gain strength and flesh. And so, I believe, we should go on and feed these patients the more. If the old plan is tried and you go on for month after month on a milk diet and no solid food, waiting for the temperature to fall to normal, you will make a mistake.

Now, in the third case, where the real typhoid fever continues, the story is a different one. Do not as yet dare to give solid food. As yet we cannot find anything better than milk. Patients with real typhoid fever keep on being sick and so do not want any solid food. I think something better than milk might be found, but nothing has been found yet which can take its place.

CASE 3.—Man, thirty-two years old, admitted to the hospital on the 26th of December. Last July, for four days, he had severe fever without definite chill; this only lasted four days while he was in the South. He was then well until six weeks ago, when he had for four days a sore throat. Four weeks ago he had a distinct chill, which was followed by vomiting, fever, and sweating. Then for a week he had chills, followed by fever and sweating every other day, appearing at about the same time; on the second week his chill came on every day; since the second week he has had chill every other day. The chill now comes on at an earlier hour.

Quinine has been without effect. Now, this is the case of a man with intermittent fever, the paroxysms going on every other day and then every day and not controlled by quinine. The paroxysms came on four weeks before the patient came into the hospital. Note that they occurred either every day or every other day. After he came into the hospital he had two paroxysms, both marked by chill, rise of temperature, and sweating. The patient's blood was examined, and the plasmodium was found in moderate numbers. Also found some lessening in the percentage of hæmoglobin and in the number of red blood cells. Notice that the man is still pale.

Here, gentlemen, we have an ordinary case of intermittent fever. A practical point that I wish to draw out is the fact that he went four weeks with his attacks in spite of the fact that he was taking quinine. Since in the hospital he has only had two paroxysms, and he is now before you without any malaria.

I think there is now a little tendency to exaggerate the efficacy of quinine in true malarial poisons. Of course, in some cases, this drug is a specific; although that is true, it will not do to think that quinine will act always as a specific if given alone, especially in certain parts of the country. Even when one gives twenty, thirty, or even sixty grains of the drug each day, it does not follow that you will be able by this means to stop the paroxysms of the fever. These patients are practically cinchonized, with ears ringing, disturbance of vision, etc. The feeling is that cinchona poisons the plasmodium, but in so many cases the paroxysms go right on, even after giving enormous doses of this drug. Now, all this means that we must think of other things. At other places where malarial

fever abounds, physicians so modify their treatment, and give other things with the quinine to control the paroxysms. The experience here in New York is that we must add some other drug to quinine to get the best effects. I think that although we admit that the parasite is the same in all places, and that the clinical features are the same, yet we must acknowledge that what answers in one place for its cure will not answer in the other. An arrangement which works here in New York is a combination with the quinine of acetanilid and arsenious acid:

℞ Quininæ sulphatis ..... grs. iij
Acid arseniosi ..... gr. 1-30
Acetanilid ..... grs. ij
M. et ft. in capsulam No. 1. Sig.—Take four in the twenty-four hours.

Now, why this combination is better than quinine alone, or when arsenic is added, or why adding two grains of acetanilid makes it more efficacious than one-thirtieth of a grain of arsenious acid and three grains of quinine, that is a question I cannot answer. I have found that it is so by personal experience; I found that the adding of the acetanilid gave me such results that I could not get along without it. I do not give large doses of quinine alone. I have been treating malarial fever in New York for twenty years, and I find that such a combination of drugs answers very well in my hands; it is even better than Warburg's tincture. It might happen that in a few years from now such a combination of drugs may not be of service.

CASE 4.—Man, forty-two years old, admitted to the hospital on December 15th. He has been very intemperate; it is uncertain whether he has had syphilis or not; had rheumatism seven years ago. He was in a hospital in Munich, seven years ago, with some trouble or other. Since that time he has been better until one year ago, when he had œdema of the legs and dyspnea on exertion. There was dizziness and palpitation of the heart. Ten days ago there was great dyspnea and orthopnea, and no headache or vomiting, and a little, dry cough; appetite was fair. His chief complaint was the dyspnea and the swelling of the legs. The color of the lips was redder than it should be; when he entered the hospital the lips were purplish. This color was that color characteristic of mitral stenosis. The pulse was small and irregular and rather weak. The radial arteries were thickened. The urine had a specific gravity of 1010, and contained no albumin. There were no physical signs over the lungs. The heart was a little enlarged; its action was rapid and irregular. There was a pre-systolic murmur at the apex. There was a history, and physical signs of mitral stenosis.

You see him now with his œdema nearly disappeared and his dyspnea going away; he is gaining flesh and has a better color. This, I believe, is due to his quiet life in the hospital. He is getting very little medical treatment.

His abdomen I want to show you. Please notice that his abdomen is distended, and is distended the more on his right than on his left side; this distention is uniform. When he came into the hospital this distention was more marked. The abdomen now is fairly flat and softer. This increase in size was due to the presence of fluid in the lower part of the abdominal cavity. This was drawn off with a canula and trocar; 300 c. c.

were drawn off, which relieved the distention very much. In percussing over the abdomen, please observe that there is resonance of the intestines in the median line; on the left side you notice this intestinal resonance goes well down on the flank; on the right side we do not get this intestinal resonance as we do on the opposite side. Note that I can feel the lower edge of the liver down below the umbilicus; the upper part of the liver extends to a point above the level of the ensiform cartilage. You notice here a considerable enlargement of the liver, involving chiefly the right lobe. There is an hypertrophy of the right lobe of the liver. Although there is no fluid in the abdominal cavity, the abdominal wall is thickened, and the recti muscles are very well developed. It is possible to feel the surface of the liver distinctly enough; the abdominal muscles are very well developed in this man. This patient was in poor shape when he came into the hospital. Now, putting aside mitral stenosis and taking a man who has little ascites, and who has an enlarged liver and no other symptoms except loss of nutrition, and with an old history of intemperance and, possibly, syphilis, we might account for a moderately large liver; but not for one as large as this one. Now, what changes in the liver would or could account for such enlargement—new growths, hypertrophic cirrhosis, fatty liver, etc.? When the man came into the hospital I thought he had a malignant new growth. I do not think it is a malignant new growth, but a hypertrophic cirrhosis of the liver. I imagine he is suffering from his mitral stenosis as much as from his liver involvement.

Influenza.—Bresler, of Freiburg, reports sixteen cases treated very successfully with kryofine. The drug seems to meet most of the indications in this affection. In small doses it reduces the temperature promptly, relieves the excruciating pains to a marked degree, and seems also to have a very beneficial effect on the course of the disease.

Unlike most coal-tar products, there are virtually no objections to the action of kryofine; even in cases of ulcerative endocarditis. While probably not a cardiac stimulant, sphygmographic tracings and tests with the sphygmomanometer show increase in blood pressure, and disappearance of dicrotism. Coincident with the reduction in temperature there is a proportionate slowing of the pulse, with improvement in tone and strength. Collapse, cyanosis, excessive perspiration, jaundice, vomiting, and like collateral symptoms, do not follow its use.

Its analgesic effect in sciatica, migraine, tic douloureux, and in fact all neuralgias, is very prompt, powerful and prolonged. In acute gastritis it has given very good results in relieving pain, vomiting and temperature. Kryofine has no effect on diuresis, nor on kidney structure, even when given in large doses for a long time. It gives rise to no objectionable symptoms in acute nephritis, while acting favorably on the temperature.

In the urine, the ferric chloride test shows the presence of the drug fifteen minutes after ingestion, so that absorption takes place more rapidly than with any other drug of similar origin. The conclusion is reached that kryofine is in many respects the most valuable member of the coal-tar series.

ORIGINAL ARTICLES.

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By DR. WARREN B. OUTTEN, of Saint Louis.

CHAPTER I.

The Place and Unique Manner of the Birth of Theodorus; Together with His Wayward Course up to His Fifteenth Year.——His Early Pursuits and Peculiar Reasoning; Which Led to His Final Decision of Making a Study of the Most Earthly Function Which Wells in the Brain of Man: His Will.——Personal Appearance of Theodorus; With a Description of His Mental Bent.——His Studies of Mesmerism; With a Description of the Intialo.——The Conception and Consequent Formation of the Bombastesian Cohort. ——A Description of the Individual Members of the Bombastesian Cohort; Their Study and Training; And Their First Start Upon Their Mission.

THEODORUS PARACELSUS, the subject of this quaint and true memoir, was born in Kahokia, . . May 18th, ... Aye, 'twas in divers way but shown, that he in lineage came from that illustrious physician, Paracelsus—a man of greatness and strange parts, who, in the beginning of the sixteenth century, startled the medical world as it had never been startled before; for he was, indeed, a learned man. The father of Theodorus was a physician—a man of means and vagary, who did bide in Zurich for many years, until discontent did make him leave. The mother of Theodorus was of Tuscan birth, a woman of strength and whims; and, in her union with the father of Theodorus, did give him fair beauty, a loving heart, and lucred means. Thus it was, that after this family had in discontent left Zurich, they settled in fair Kahokia. Now, this twain had been mated for unto a score of years, and never had progeny. When, with a change of abode, came this family's blessing. But, just a month prior to the birth of Theodorus, misery came unto his mother; for his father died.

The year . . . . was marked by many portentious and appalling signs, omens, and convulsions of nature. A tornado occurred; and the house in which Theodorus' mother did bide was blown down; and at the same time she was thrown across the street in front of her neighbor's house. Now, here doth wonder come. It was never known at what particular moment, or part of an hour, Theodorus was born; as, when his mother came to after having been rendered unconscious by the rude treatment of the tornado, she heard him lustily yelling beneath her dress, he having come into this world unknown to her. Thus it happened, that he was the only person known to have been delivered under such circumstances; and his mother, the only woman who had ever been delivered under the boisterous ease and comfort of a cyclonic anæsthetic. Nay, time lends marvel. It is related that ere the cord was severed, Theodorus had assumed a sitting posture, pushed his mother's dress aside, begun leisurely to suck his

thumb, and complacently view the havoc made by the tornado. Aye, 'twas kindly fortune; for he and his mother were in time rescued from amidst this wreck of matter and this locally crushed world. Neither was injured by, nor did seem to suffer in consequence of, this cyclonic delivery. Hence, the manner of his birth was soon heralded about that region; toothless beldames for miles around came and viewed this boisterously-delivered child and muttered unutterable things, predicting a grand cyclonic future, a mighty and gigantic and windy destiny—that tornadoes, hurricanes, samiels, harmattans might, peradventure, injure him, but could not kill; or, a typhoon, haply, carry him heavenward; but, that the strongest monsoon,

Theodorus Paracelsus.

sirocco, levanter or tramontane had not power to seal his fate. Anon, even in his cradle, Theodorus did but evince a wayward, reckless, and headstrong determination. If lusty, nervy yells were unavailing to make some one rock the cradle, he would stop his cries and rock himself to sleep. Thus, at this early period, he plainly showed that he was thoroughly self-helpful and independent. At three years of age he evinced a wonderful discrimination as regards medicine; and indicated in pantomimic action the proper dose of paregoric necessary in his case. Yea, he was even then Medicine's pupil. At six years of age he had learned to read; and literally devoured any almanac brought within his reach—anything of the mystic,

magic or monadistic. He was especially fond of Zadkil and Raphael; and alone and unaided had constructed hieroglyphic horoscopes. He knew the virtues of the cabalistic word, "Abracadabra," and more than once had made and properly stitched and folded, and placed these charms around his own and companions' necks. Stranger still, he made and even knew the use of the pentagram of the Pythagoreans. All efforts to educate him according to the standard rules then existing were utterly futile. Nay, in consequence of the stubborn intensity he maintained, he was but allowed to pursue his studies according to his innate, wayward, and willful taste.

'Tis said, from earliest childhood, a distinctive characteristic of his nature was a seeming aversion to the exercise of all wild, unrestrained, muscular effort. For, in after life, he said that the best product of brain came only when man was sitting; that a standing position was a partially protective or combative one, and competent only to give vent to what had already been thought while sitting. Nay, 'twas true the world was ruled, after all, by men who sat and thought; that dependence on mere muscular power was common to beasts, birds, and reptiles; that Man was the genius of Thought, and that the best thought was always capable of suggesting ways and means of obtaining all that the physical power needed; and that brain eternally presided over muscle. Thus he grew up wayward, deter-termined, and peculiar. He was essentially his own master until his fifteenth year, when he voluntarily engaged with an aged pharmacist. Now, 'tis true, Theodorus had but few playmates, and those only who seemed to be perfectly under his dominion and command, who, also, seemingly obeyed him with alacrity, willingness, and punctiliousness. As in after years with others, he would then brook no discussion of his judgment; for that he held final and ever to be accepted. For eight years he was indeed an eager, industrious student of pharmacy; but withal seemed determinedly intent upon studying the mystical and ancient. Nay, did he not compound philters, decoctions, and potions, and administer them to animals with his own hand to see their effects, never revealing to any one his hopes or ideas? 'Twas strange, yet for hours Theodorus would be found self-communing. He would lie or sit in the full glare of a hot summer sun, with half-closed eyes and uncovered head, apparently in delicious revery. "For," said he, "heat is life; and cold, but the start of death; and man thrives in the heat only; and if man would be sensible enough to but study his true barometric condition, he would thus be enabled to obtain the best of mental fruits." "Nay, 'tis true," he continued, "cold only makes man a beast of appetite, and robs him of healthful soul; heat is the cause, support, and natural abode of great souls and best thought; sudden changes in temperature are but an agent of death, an obtunder of thought, and a depressor of vitality. December and February stay the flight of genius, benumb the sensibility of mind, and are veritable harbingers of disease and death. For, at the poles of the earth, death is predominant; thought and progress killed. Nay, if it were possible to have an unchanged, unruffled period of heat in any single spot of earth, that spot would fecundate the germ of puissant thought. Why, are not men made lunatics by extreme stretches of temperature? Does not bad weather make bad men worse, and good men bad? Aye, is not weather a more potent cause of evil to man than any single source? Yea, genial May is the

month of Mind, the nourisher of genius and intellect; and if all the months of the year were as May, then, indeed, there would be no limit to intellect, and genius, and the earth would become a veritable paradise. For May, as a month, has accomplished more in the growth of intellect and the progress of man, than any single month of the year. Oh, glorious May! thou art, indeed, the month of genius. February, thou art the month of dullards! Yea, Spring for brilliant, intellectual growth and accomplishment! Summer is but its temperate ally; Autumn its partial reawakener; and Winter its paralyzer. And, had not heat been generated, man's progress would have been as unknown as it is at the poles.

Theodorus was now twenty-three years of age, tall, slender, erect, and with precise and graceful movement. His forehead was gracefully rounded, receding gradually, making it look symmetrically prominent at the eye-brows. His cheek-bones were high and firm looking. His eye-brows were black, thin, and slightly curved upwards. His nose was of the firm, graceful Grecian pattern. His eyes were large, prominent, and dark brown; yet withal, presented a thoughtful, speculative, intense look! His mouth was of medium size, showing a pair of symmetrical, thin, determined-looking lips, whose corners wore a slight cynical smile. His chin was strong, yet pointed. His hair was curly, dark brown in color, and clung gracefully to his scalp. Aye, his was a face and head of keenness, concentration, and determination. 'Twas not one of those betraying weakness, but rather one which indicated intensity of accomplishment, sustained by an ambitious and inflexible will.

As has been already stated, Theodorus, during his apprenticeship, was studiously at work as a druggist. But during his eight years of labor he was ever a constant reader, buying to the limit of his means books upon astrology, magnetism, insanity, and travel. He found, as he did grow in knowledge, that there was nought to be obtained from attempting to adapt magic and astrology to the treatment of disease; that it was an impossibility to fuse, and make practical, natural astrology with judicial; that whilst the motion of the heavenly bodies could be absolutely predicted, it was still an utter impossibility to foretell the influence of constellations upon the destiny of men, nations, and empires. Aye, marvel upon marvel might be traced to ancient rites, formulas, and symbolic fancies; they were but the result of coincidence, or of strong individual will-power. The augur, who interpreted and proclaimed glorious news or sad facts from the cries of beasts and birds; the haruspice, who professed to read, to prophesy, upon the heart and liver of slaughtered animals, and all the so-called diviners who rehashed the past and foretold the future, lived and thrived but through the superstitious ignorance of others, and through happy coincidence. Yea, oneiromancy, the interpretation of dreams; chiromancy, the telling of fortunes by the hand; scapulimancy, the divining by the cracks of a shoulder-blade put in the fire; and rhabdomancy, the use of the divining rod; while all, perhaps, are in the realm of coherence, still they were deeply nonsensical, unreal, and constantly impotent in result. Anon, in all of these instances, it is, after all, but an intense mentality of one man playing upon a willing or weakened mind of another which doth accomplish any result; that brain—living brain—its product, the mind, rules the world. Aye, the mind, while possessing seeming elements of unreality,

yet itself the only actual element of potency, the prime and sole force of organic being, as electricity seems to be of the inorganic.

Theodorus' contact with physicians, and his own experience with drugs, did not seem to increase either his respect or love for the healing art as then practiced. He did avow that nought would tempt him to study medicine in schools, as then taught, but that he would, unaided and alone, build up a school—a sensible and worthy school of his own. Thus, day after day, would he be seen bare-headed, in deep revery, either lying upon his back or sitting thoughtfully stooped, basking in the rays of a hot sun.

He had reasoned out that the art of medicine had originated from magic, and that whatever success magic had attained had evidently been effected through animal magnetism and an intense, propelled mentality; and that there was, indeed, some peculiar force and influence which living beings exercised upon each other; for he, himself, had repeatedly seen and felt this. But whether this force was magnetism or the phenomenon of electrical currents, generated through the living body's action electrically upon the bodies of others, he could not determine. Had he not read how Ælius Aristides had accomplished a series of cures plainly by nervous sleep; similar to, yea, almost identical with, those subsequent effects by Mesmer! Aye, he did peruse with but interest how Valentin Greatrakes, of Ireland, plainly possessed the power of curing king's evil, or scrofula; how thousands had witnessed and proved these cures. Anon, how Joseph Gassner, a priest in Suabia, carried the masses with him and cured their diseases. 'Twas vouched for by many thousands how Mesmer, on beginning his studies, and after graduation, had been from the very outset an astrologist; believed that the stars exerted an influence upon man; that this astral force was electricity; finally becoming convinced that it was magnetism. Then, again, how Mesmer, after he had concluded that it was magnetism, stroked people's bodies for the cure of disease with magnets in his hands; and how, two years later, upon seeing Gassner with his naked hands thus cure disease, had discarded the magnets and imitated Gassner. Nay, Theodorus pondered, mused, and smiled ecstatically, when he read of how Mesmer had gone to Paris and made his grand and phenomenal record in that hot-bed of medical science.

Theodorus had frequent converse with Dr. Helius, and although he had but little faith in his views of medicine, he yet learned from the doctor many facts about Mesmer. And the doctor himself well recounted the wondrous story of the marvels of Mesmer's apartments, then all the talk of Paris. How, as one entered the room, it seemed to be almost dark; when gradually a golden hue o'erspread the room, leaving all glimmering, but indistinct; that there were hung in many places mirrors, so arranged as to give the impression that this room led off into corridors; that in the middle of the room was a golden altar, which ever and anon flashed lights of varied color and exhaled strange perfumes; that in the midst of the silence and the wonders of that room, strange, delicious music now and then was heard, like the tinkling of crystal bells, sweet, pure, and thrilling; and again there was wafted on the air throughout the room the sweetest of odors, fragrant as the orange, the rose, or the violet. Aye, grouped around the golden altar were many patients, holding each the

other's hand; and thus they were permitted to abide awhile, noticing the many-colored lights coming from the altar, listening to the strains of seemingly celestial music, and inhaling delicious odors. Yea, wonder, novelty, and enraptured suggestion did but keep them in tremulous expectancy; when suddenly, as though springing from the earth, appeared Mesmer, clothed in the flowing robes of the magician, resplendent with gold and diamonds. No noise announced his coming. He seemed to materialize before them, and appeared to float through space. His every move seemed powerful; a glance of his eye, a smile on his lips, a wave of his hand, seemed panacea for some sufferers. Yea, the effect of his presence was wondrous. The seemingly strongest man among the patients fell into convulsions. One woman suddenly stood erect, with her eyes widely staring, gazing straight ahead, her body fixed as a stone. Another, alongside, gave several piercing screams, then fell in a fainting fit; while yet another burst into tears; when, upon the touch of Mesmer's hand, her tears were checked at once, and she began to laugh aloud, as if she were but happy. Mesmer's every word seemed law, and patients did as he ordained. It was, indeed, a wondrous and, withal, a fearful sight; and so deeply was Dr. Helius' ancestor impressed, that he became deathly nauseated and fainted. Nor did he know what had transpired until he found himself again beneath another ceil.

Thus it happened that these and similar tales about Mesmer and others became known to and profoundly influenced Theodorus. Nay, not only these, but his frequent talks with his mother (a Tuscan by birth), who had gleaned many other strange Mesmer stories. She did tell him, among other strange things, "how sorcerers had been punished by Intialo; how the shadow of the body was strangely analogous to the human soul; that the shadow had its birth in life, but still retained the essence of darkness; it bore the outline of the body, and mimicked every motion thereof. It was always present with the body, a substance; yet while it, itself, had not substance, it could only come from substance; although it had no life, it moved with life. Life always had its moving shadow; while death, indeed, had its still one. The Intialo is but a spirit in human form, who shows himself in any shadow, and diverts himself by inspiring terror in sorcerers or in any one who has committed a crime. He causes a fearful shadow to be ever present with him—the man. Then Intialo, in the shadow, tells the man that, in consequence of his wickedness, it will ever follow him, no matter where he may fly; even to the ends of the earth, or in the bowels of the earth, or on the pathless sea, it will ever be with him; and Intialo says:

"In thy soul and in thy heart,
Poison steeped in every part,
Cursed, ever now depart;
Yet, wherever thou may'st flee,
I shall ever follow thee."

Then this man will be in terror; and he will ever see the shadow before him, day by day and night by night; and thus he will have no peace; and yet this is the spirit of Intialo. Now, when he is thus tormented for awhile, for some past misdeed, he feels himself haunted, as it were, by the

shadow of one whom he has wronged. When he finds, at last, that he is not pursued by it, indeed, but by Intialo, then shall he repeat the exorcism. He tells Intialo that he knows what this is; and that he, himself, too, has power, and will use it; and that "as thought would make a dog of me, I will make swine of thee;" that Intialo is a cheat; that he has no further dread of him; and finally says:

"Intialo, everywhere
With me magic charms I bear;
Ivy, bread and salt and rue,
And with them my fortune, too;
Intialo, hence! away!
Unto thee no more I'll say;
Now I fain would go to sleep,
See that thou this warning keep;
I'm not in power of thine;
But thou only art in mine." [1]

Thus, after detailing this, his mother had said: "Woe betide the weakling without the will; for it is only will, and very strong will, that kills the Intialo." After which Theodorus had said: "Thus it is will; always and eternally will." To him it seemed almost certain that all this obviously pointed to the predominance of mind—willing mind—over all conditions. He did but argue, that the other conveyed mental influence as it did the light. Clairvoyance could not be explained away by the equation of coincidence. There was undoubtedly a power of mental vision and hearing, and a seemingly mental production of other similar sensations; that it had been demonstrated that there could be a projection of mental individuality to almost unlimited distance, and that this individuality, although, at a single place, might, indeed, announce the condition of an object at another. Yea, and he was inclined to believe that animal magnetism and clairvoyance were but one and the same thing, made different by surroundings and ethereal conditions.

Thus hour after hour he did but argue that, after all, everything in this sphere was only the intense and favorable application of mental force, which produced effect; and that if one man alone, like Joseph Gassner, or like Mesmer, could accomplish these wonders, what might not be done by a trained cohort! Mind—will, the prime and sole force of man—aye, what might not it do, if intelligently trained and disciplined; working concordantly to one common end. If Joseph Gassner, alone, carried crowds of men with him, and wielded them by his single mind or will, then who could tell what twenty, forty, or more, wills could accomplish, if trained to think as one man? Gods! had there never been suggested a more plausible or a more hopeful and seemingly thoroughly potent therapeutic agent? Yes, was not the thought worthy the endeavor? For had not nature constituted him for high missions? Nay, to him it was a certainty that she had not constituted him to dole out pills and powders, nor to deal in trivialities; his was a mission to found, to establish, and to deal with masses of men, possibly even with nations, empires, and continents as well.

[1] "Legends of Florence." By Charles Godfrey Leland.

Verily, the idea was good, and Theodorus determined to commence at once the formation of his magnetic cohort; and the cohort should be called "Bombastesian," after a part of his father's name. He would copy after Mesmer in the idea of mysterious surroundings; and add thereto the shadow, along with the spirit, of Intialo. This might, perhaps, serve as a good substitute for mirrors, which he feared he could not obtain.

In his desire for encouragement he did but speak to Dr. Helius concerning the project, when the doctor bluntly and impolitely replied that an old proverb ran as follows: "The first degree of folly is to think one's self wise; the next, to tell others so; and the third, to despise all counsel;" and that "fools ventured where wise men would not." To which Theodorus e'en did reply, that he had heard likewise that "where the learned

Blong Bom.

lose themselves the ignorant may triumph;" that "it is wise to play the fool in season;" and that "only the dead can tell the true and honest value of a doctor's advice." Moreover, that it was certain that a doctor's advice, when untaken, frequently had given a man his best and only chance for life.

Thus undaunted and determined, Theodorus commenced his lifework. But in his magnetic cohort he must have those whom he could control perfectly, and who would implicitly obey his every mandate without question or murmur; so day by day he would go and hunt for men that would but suit his purpose. And after a long, tedious, and harassing search, he managed to select eight men, over whom he seemed to possess the most perfect control; for had he not repeatedly experimented with, and mesmerized, every one of them. So that now he was certain they would most eagerly

do his most trivial bidding. In describing this cohort, he had said: "Man for man, each is so weak as to be able heretofore only to hold the glimmering candle of failure; but, united, they constitute an unusually strong will." Theodorus, speaking of those whom he had selected for his cohort, thus said: that—

"Theo Celsus was a lawyer's scribe; and like a lawyer, himself, had many words, and was a bad Christian; in fact, he was like law: he was made up of common error.

"Para Blarsius had been a curate's clerk, who had grown so poor that he had become convinced that he had neither right nor share in the sun, earth, or air; that if it were, indeed, no sin to be poor, he, himself, was sinless; actually he was very much like echo, as he had only a voice which he could call his own.

"Blong Bom was a barber, and had so frequently, when shaving his customers, left neither hair nor skin on them that he 'shaved' his business away; and had thus become a sorry barber indeed; as, with only one comb in his possession, his trade was truly ended.

"Tius Bu was a well-done merchant, done-up forsooth! who had bought, sold, and tried to live by the loss; for he had failed to learn the merchant's art—which consists in getting paid, rather than in making sales. Yea, it was equally true, that he who always gains, as likewise he who always loses, is no merchant; for, the first must be either a fool, or a prince; the latter, he was sure, a beggar.

"Young Us was but a blacksmith, who had often tried, with a smokeless fire, to make good steel out of bad iron; thus, himself, becoming the victim of 'rust.'

"Vege Go had been but a shoemaker, who had gone beyond 'his last' so often, that his subsequent attempts proved but failures; for all his shoes were made of 'running leather,' so that the shoes and the men who wore them ran so far as never to come back.

"Tes Aure was a wine seller, who had rather have a bumper in his hand, than the Bible; hence, what he thought when sober, he told when drunk, to the ruin of his business.

"Heine Lanius was a baker, who tried to pay for flour after his bread was eaten. He, for one, had found out that credit not only cuts off customers, but made him far 'shorter' than his own bread; that while even a bag of straw was of some value, from a bad debtor, he, himself, got but oral breezes; whence failure resulted. For, he was not like a cyclone, which did business with wind only."

So, night after night, did these members of the cohort practice together; until upon more than one occasion they had demonstrated their ability, to produce by the united concentration of their individual wills, strange and unusual effects. Yea, remarkable, but true; upon one occasion, it was agreed that they should attend church, and, at a certain signal, in the midst of the sermon, all will, in unison, that the priest should stop preaching. And, lo! and behold, when they all did concentrate their will in this demand, the priest suddenly stopped, with hand uplifted, his mouth agape, but sounding not, his eyes stretched wide asunder, as if in fear. Thus he stood for many minutes; when some of the congregation rushed to his assistance and carried him from the pulpit. Dr. Helius, on

being summoned, declared that the father was threatened with apoplexy; while the father, himself, affirmed that he had never felt better in his life; and was not aware that anything unusual had occurred. But, notwithstanding all this, he was put upon a course of purging and depletion.

Anon, upon another occasion, when Dr. Helius, himself, was attending church, they made him spring to his feet and say "Helloa!" in a loud voice three times. Now, it happened that, e'en as the priest was in the midst of his sermon, the old doctor did spring suddenly to his feet and shout in his loudest voice, "Helloa! Helloa! Helloa!" to the utter astonishment of everybody. Having done this, he sat down as if nothing unusual had happened. Aye, he could not be convinced after that he had done this indecorous act, as he was at no time aware of having done anything of the kind, and he denounced them as liars. The congregation, however, came to the conclusion that he must have fallen asleep, and while in a dreaming condition sprung up and shouted loudly. The doctor, however, rendered uneasy by their continued assertions directly to him, purged himself copiously, as a measure of precaution, and then lived on toast and tea for a month.

Nay, our Bombastesian Mesmerists did but essay more difficult tests. But 'twas found that a single, simple, intense thought could be willed effectively; now and then that sequent and current actions could not be compelled; that here almost invariably there was failure. Yea, anon, that those whom they could, indeed, influence did not manifest effects of uniform intensity; for upon some they failed utterly, while upon others they exercised violent influence; so that their power proved limited. But personal contact with Theodorus gave them their greatest power; a knowledge of the fact that their wills aye did act best but when undergoing a rigid fast; and that they could not concentrate their wills in unison after any of them had partaken of stimulants. Theodorus soon learned, also, that a signal was necessary for indicating the exact moment when the entire eight and himself should concentrate their minds in unison, for the purpose of simultaneously willing any given object; so that he did but speak the first name of each of his companions slowly, repeating the following:

"Heine, Vege, Tes, and Blong;
Tius, Para, Theo, Yong!
Will ye! Will ye! Will ye! Strong!"

And now, through the aid of Theodorus' mother, they were prepared to start upon their journey. Theodorus had arranged their caravan in grand and effective style. A large, parti-colored tent was selected as their main consulting room, which was to be partitioned by a screen of many hues. Behind this eight men could stand comfortably and still be hid from sight. Now, this screen had painted upon it hieroglyphics, astonishing and quaint in character—yea, even dazzling to the eye. Sixteen small-sized holes were made in it, at heights corresponding to those of the eyes of the eight Bombastesians, standing erect. And this partition being arranged thus, these eight men could stand behind it, unseen, and yet glare through the holes and influence any person under treatment. And, behold, in the center of the tent was a gilded altar, in the midst of which slum-

bered a low fire, ever and anon flashing red, blue, and green lights, casting deep shadows. Theodorus was the only person to be visible, when any one did but enter the tent. He was clothed in the garb of an ancient magician. A high, towering, pointed, gilded hat was worn; upon the breast of his long, dark, and flowing robes was embroidered the Pentagram; and, suspended from his neck, a triangular gold plate, bearing upon its face the bright letters of the Abracadabra. His gown, besides, was covered with bright stars and gilded serpents. And around the tent were dark figures of many shapes; and everything visible was constructed and arranged with a view to influencing and impressing the mind of the beholder.

When they approached a town, these eight Bombastesians were sent ahead to announce that "the Great and Celebrated Bombastesian Physician, Theodorus, was coming," and that "he would attend the afflicted of every kind;" that "medicines were not used," but that "the afflicted were simply cured by laying-on-of-hands;" that "the cures of Theodorus were miraculous, marvelous;" that "the magic of his touch eased pain; relieved the weary brain; brought back hope and reason; made the paralyzed walk, the deaf hear, and the blind see;" that "his gaze produced sleep, attended by heavenly dreams;" and that "the afflicted grew well while sheltered under this balmy and delicious sleep; such cures hitherto never having been dreamed of, much less known."

Thus equipped, thus they started. Aye, by my troth, I but recall that determination and ignorance were their leaders. 'Tis a varied story of five strange years; how they wandered 'midst a motley crowd, 'mid freakish times and circumstances, till London great was reached. Aye, 'tis useless and vain now to speak of petty happenings then. But, forsooth, such was the determined intensity of Theodorus that difficulties were transformed into fortuitous happenings; and, from a seeming medley, yea, comedy of events, the dignity and the might of common sense and inflexible will did compel honor, respect, and accomplishment on all hands. Nor is it the intent of this chronicle to detail trivial event, but rather mental cause and effect, such as will show the true dignity of this strong, yet strange man's purpose.

Thus far, the reader hath not reason and purpose of my association with this Bombastesian Cohort. 'Tis easy spake: When Theodorus did take service with our ancient pharmacist, I, Menthos Boule, was but a washer of bottles, a listless drudge to this old man. From the very day when I Theodorus did first meet, I was drawn to him. He was my friend day by day, aye, year by year; and when he did his strange cohort compose, I was attached thereto. In most stringent terms was I explained my duty: to receive such patients as might apply, and, by their earnest quizzing, learn e'en all that could be learned, which information I should impart direct to Theodorus. Nay, I must be scribe, as well, to the cohort; and tend to divers other things wherein my use might lend effect. Hence, I am thus but writing, which my part as scribe gave power and lief to do.

[TO BE CONTINUED.]

OPERATIONS THROUGH THE VAGINA FOR DISEASED ADNEXA.[1]

By R. R. WALKER, M. D., of Paris, Texas.

I WANT it distinctly understood that, in selected cases, in those cases where it is necessary to have a complete and clear field, for operative purposes, in the pelvic cavity, I do not consider the vaginal route is preferable to the abdominal incisions. But when I look over the various references and writings of the gynæcologists of the period, and see the advocates of the abdominal methods recommending the very smallest incisions possible through which you are to introduce two fingers and complete the operation about this region, I fail to see and appreciate the value of their logic. When we come to consider the anatomy of the uterus and its adnexe, we find that, practically, they are extra-peritoneal, and all operative procedures can, in the majority of cases, be performed extra-peritoneally; certainly a point to be attempted in all operations involving the pelvic viscera.

In all surgical laws there is no law that is more correctly interpreted than the one that tells you to expect best drainage from the most dependent portion of the operative field. This law nature gives to us in all her many similes. And in no other branch of surgery is this law so flagrantly violated as in gynæcological work, especially in the cœliatonius, as done by the gynæcological world of to-day. In no other operation do we attempt to drain pus or other fluid contrary to nature's law of gravity. In order to cause a fluid to oppose gravitation, one of three forces must be applied—*vis a fronta*, *vis a tergo*, or capillary attraction. Now, the application of any force to the achievement of an end must be constant, and the very moment you remove the former, just that moment does the accomplishment of its purpose cease. The capillary attraction, an illustration of which is found in the gauze packings within the drainage tube, is sluggish, and to a great extent impracticable when applied in operations within the abdominal cavity, when the method has been by incision through the abdominal wall. As said in the beginning of this paper, I have done laparotomies, and have had, I am sorry to say, the usual death rate; and I would say that, in properly-selected cases, this procedure must be instituted; but I believe that the trend of opinion with regards to the better plan of procedure is falling back and adopting the vaginal route as the one most favorable for the completion of most operations about the pelvic viscera. There is one factor alone that will ever remain a proven proposition, and therefore axiomatic, and which will always cause the vaginal route to be adopted, and that is the mortality rate in favor of the

[1] Read before the North Texas Medical Association, at Dallas, December 15, 1897.

vaginal method. I say this is the chief reason for preferring the lower method.

Second.—The comparative ease with which the diseased area is reached, makes the vaginal route more favorable.

Third.—The avoidance of all after-troubles, such as ventral hernia; tender, excoriated cicatrix, adnexa, etc., makes the selection of the lower route the best.

Now, these are the three principal reasons which have caused me to adopt the vaginal route in most of the operations for diseased uterus and adnexa.

Then again, gentlemen, you will find cases in whose economy the natural resistance to shock is entirely wanting; there seems to be something wanting in their make-up. Do a laparotomy on these cases, and you will notice that the element of shock is slow to be overcome, and it will take good, quick work to save your patient from the grave. There is no way you can detect these constitutions; there are no means by which you can discover or foretell what the result of any severe operation upon them will be. You, therefore, have no right to subject your patient to an operation which is attended with much shock, when an operation will answer the purpose, fulfill the same end, and be attended with the same good results, in a field that is less dangerous, etc. Do not let your prejudices bias your good judgment. I intend to present cases that will be illustrative of the points I wish to bring out as I present the different conditions demanding operative interference; and I will say that I do not base my conclusions on the result of these cases alone, nor do these cases comprise my work in this field. There is no class of cases in which we get better results than in hydro-salpinx; for we will find that in these cases there will be but very few adhesive bands to free, and our dissections can, therefore, be more thorough and complete.

December 6, 1893, Annie S., aged twenty-seven, prostitute, under chloroform, presented an enlarged fluctuating mass in left broad ligament, which was diagnosed hydro-salpinx; a free incision into the tube, through posterior vaginal wall, verified diagnosis and drained the tube completely. Drainage tube was inserted into the cavity of tube, gauze packings were used both in drainage tube, around the tube, and in the vagina. These were changed daily, and hot douches used. Tube was left in for four days, at which time discharge had ceased. Patient was cautioned to remain in bed, but on the sixth day, owing to financial distress, she began her usual calling, and, as far as I know, with impunity. She remained under my observation for two years and six months, and she informed me at the end of this time that she was as well as she ever was in her life, and had had no trouble since. I found, on vaginal examination, no reaccumulation of the fluid.

In cases of suppurating ovary you will find that while your work is much more tedious and your manipulations correspondingly slow, at the same time the ovary can easily be reached and drained of the purulent accumulation.

Mrs. M., married; multipari; presented a suppurating ovary of the right side. Under chloroform an incision into the organ, through the vagina, verified diagnosis and relieved the cavity of, perhaps, ten ounces

of purulent matter. Free drainage was used, and while the patient was some seven weeks under treatment, still she recovered, and, so far, nearly two years afterwards, there has been no reaccumulation. I will state that in this case I could feel the corresponding tube, and was of the opinion that it was in no way involved.

Where we have pyo-salpinx complicating matters, I believe that cœliotomy promises the best results, as in this condition we have a mucous membrane diseased and sloughing; and we all know just to what degree these conditions will resist all local applications and medications. And then, again, in this condition we will find a considerable peri-inflammatory trouble, and a corresponding amount of adhesions, the breaking up of which requires a vast amount of manipulations and care.

Minnie C.; prostitute; presented a double pyo-salpinx, following an abortion. Under chloroform and vaginal incisions the diseased tubes were reached and freed on both sides as much as it was possible, which was not complete; owing to the inflammatory adhesions, both tubes were incised and drainage directly into the calibre was used. Patient did remarkably well and left the hospital after two weeks, and remained, apparently, relieved for three months, when she again consulted me, at which time only one tube had refilled. Same procedure was used and patient discharged in nine days, and since that time remained well for ten months, when I lost sight of the case, as she moved out of the city. I will add that she would not consent to laparotomy, and I told her that what I would do would only be a relief.

I would like to say, while on this class of cases, especially in suppurating ovaries, that I believe in and have practiced the plan of opening through the vaginal wall into the pus sack, thereby draining the entire ovary, as a good preliminary procedure, supplemental, as it were, to a cœliotomy. You by this means rid yourself of the dangers of rupture of the ovary and escape of pus into the general peritoneal cavity during a laparotomy. And we all know how very difficult it is to peel out these old suppurating ovaries without rupturing them, as their walls are very thin and, therefore, will not withstand any unusual manipulations. And, in case you should require drainage, you have it already established in the most favorable position.

In cases of periuterine inflammatory conditions, where you find the fundus retroplaced and fixed, nothing is more simple than to incise through the vaginal wall, break up and free the misplaced uterus, drain and tampon, afterwards using a well-fitting pessary until complete restoration has been accomplished.

Mrs. R.; multipari; has suffered all the usual pains dependent upon chronic periuterine inflammatory troubles, together with retroflexed adherent uterus, since the birth of her first child, seven years previous. Under chloroform an incision through the posterior vaginal wall was made, fundus freed completely, until it was easily movable, gauze packing used, well up behind the fundus, in order to support the organ, as far as was possible. Daily manipulations were practiced to keep organ from assuming abnormal position. Glycerine tampons employed until incision had closed, when a well-fitting pessary was introduced. The patient has expressed herself as feeling like a different woman since the operation, and at this time,

eighteen months after the operation, the fundus is in good position and is freely movable. I will state that the pessary is still worn.

Mrs. M.; multipari; under chloroform presented a sausage-like mass in left broad ligament which, from the history of the case, was diagnosed ectopic gestation, with rupture of the tube. An incision into the mass per vagina verified diagnosis. Contents were thoroughly removed, both with fingers and dull curette. Drainage and packing with iodoform gauze was used, and in three weeks patient was discharged cured, or, rather, relieved of her trouble. I will state that in these cases you will find that to avoid hæmorrhage, packing tightly with gauze will be often necessary. Of course, it is necessary to say that your drainage must be perfect. I will say that I have operated on three cases of ectopic gestation by the vaginal route, with no deaths; while in three cases operated upon by the abdominal method, the mortality rate has been sixty-six and two-thirds per cent. Of course, the conditions were, to a great extent, different in the two classes. Now, in those cases that are termed acute pelvic cellulitis, in which we find pus in the pelvic cavity, we have a condition that should always be met by the incision through the vagina. For it is in this region that the trouble, or rather the pus, presents itself, and it is through this means that we expect to procure and secure the best drainage; and as these cases are often met with, I will only say that the one cardinal principle is that drainage must be perfect and remain perfect until all pus has ceased to flow and all constitutional symptoms have subsided. For the purpose of drainage I prefer an extra-large glass tube; you will find that through this means you can daily irrigate the cavity with very little trouble and annoyance, either to yourself or to your patient. If the abscess cavity is merely incised and packed with gauze, you will find that the condition of sepsis is not relieved or mitigated, and that before you realize it the incision has closed and all of your expected relief has been *nil* and your case is in the same condition as previous to operation. Also, remember that the cervix acts as a valve, and unless it is pushed up to the anterior vaginal wall it will close your incision, acting as a plug.

We will find that pus often gravitates towards the vagina, coming from distant points, as in psoas abscess, or suppurative conditions about the appendix.

Mrs. H. presented a distended abdomen which gave evidence of indurations from the umbilicus to the pubis through the vagina; posterior vaginal wall was protruded and board-like to touch; some slight sensation of fluctuation. Diagnosis was pelvic abscess. Under chloroform, with the usual incision per vaginam, at least sixty ounces of very foul and offensive pus was discharged, which was immediately followed by recession of the abdomen, after which the indurated condition could be more easily located in the cæcal region. Thorough drainage and usual proceedings were used. Two weeks after this operation, the temperature remaining above 100°, pressure over the indurated region, in the right inguinal region, causing considerable pain, laparotomy over this region was done, and through and through drainage employed. The appendix was not found, and was therefore not removed. The patient, while apparently near death's door at several different times, made a recovery after ten weeks' confinement to the hospital and was able to return to her home, New Boston, Texas. I

am thoroughly satisfied that her original trouble began in the region of the appendix.

And now, gentlemen, I hope I have not in any way wearied you in the presentation of these points and in the illustrated cases. And as I have told you of my successes, I feel as though I must tell you of a complication arising sometimes in these operations per vaginam, about which it will be well to know if you have not already met with it, and that is sloughing, or incising the rectal wall, in which case you will feel much chagrined to see that there is a meto-vaginal opening. And I warrant you that your patient had better be kept in the "dark" concerning its presence. If you would avoid this, always be careful and begin your incision well upon the cervix, and as you peel back the m. m. you will find that the rectum has not been approached to any dangerous extent. When you do these operations, bear this fact in mind.

Now, gentlemen, allow me to say, in conclusion, that I herein bring my mite and lay it before you, hoping that it will at least cause some of you to think about the points that I have presented, and laying aside all prejudice, looking at them from all sides, give us your opinion. And while the vaginal route for operations and drainage might be considered obsolete by some, still if you will only stop and consider nature, and nature's teachings and laws, you will find that the old ways are the best, and that pioneers in our noble profession were not such fools as they would appear to the *fin-de-siecle* gynæcologist.

PULMONARY TUBERCULOSIS AND ITS MODERN TREATMENT.

By H. L. McNew, M. D., of Honey Grove, Texas.

CONSUMPTION, so-called by the laity, is an infectious, and the most frequent and the most constantly fatal disease to which the human race is liable. It destroys more lives than all other infectious diseases combined.

The history of pulmonary tuberculosis is ancient, but we can refer back to 1877, when Koch first discovered the tubercle bacillus, which is the true micro-organism of consumption and may be found in the sputa in almost every case. Consumption may run either an acute or chronic course, and may occur in any country, in either sex, and at any age.

General Symptoms.—First, dyspeptic appetite, variable, faulty digestion, and marked aversion to fatty food may, for some time, precede the cough, this being dry and hacking and most severe at night or early morning,

but afterwards accompanied with a clear, sticky expectoration, or it may be tinged with streaks or dots of blood; and I will add right here that a cough and expectoration from any source or affection of the thorax is one of the most difficult points of differentiation of any affection I meet in the practice of medicine.

There are so many conditions of the thorax which may produce a cough that we are unable, a great many times, to arrive at a diagnosis.

We sometimes find a patient with a typical consumptive cough, and upon careful examination we find a normal pulse and no other symptoms of consumption. We then form our diagnosis other than pulmonary tuberculosis, and treat accordingly.

I have observed that, from the invasion of the tubercle bacillus in the lung tissue, a marked disturbance in the circulatory system is produced, and that in the progress of the disease, when we find a remedy which will assist nature's forces to destroy the enemy, that the pulse is the most reliable messenger to tell the condition of the battle being fought.

Prognosis.—As above stated, consumption may run either an acute or chronic course. It is of the utmost importance that an early and correct diagnosis be made, as it is in the incipiency of the disease that we can hope to do more to check the progress and perfect a cure.

In the advanced stage the prognosis is very, very unfavorable, and it is then purely a case of hope against faith for a recovery, both with the patient and the physician.

Since there has been so much progress in medicine and so many new discoveries, we are awakening to the sense of our responsibilities, and we are not only curing and saving many lives from being destroyed by that dreaded monster, consumption, but are preventing, to some extent, the spread of the disease.

Pulmonary consumption runs a course from two weeks to two years, or longer. We have not only had recoveries after reaching the advanced stage, but there have been a number of cases reported as spontaneous recoveries; and, with my limited experience in the care of consumptive patients, I can heartily endorse the theories advanced by some of our leading authorities.

Treatment.—When we study the history, duration, and prognosis of pulmonary tuberculosis, the treatment almost suggests itself. We find the presence of the tubercle bacilli producing a local manifestation characterized by a dry, hacking cough, with or without expectoration; accelerated pulse; evening or morning rise of temperature, 99° to 103° F.; variable appetite, night-sweats, loss of flesh as well as strength.

It is an established fact that this disease can only attack persons who are in a state of lowered vitality, either hereditary or acquired. It is also true, and has been proven time and time again at post-mortems and in dissecting rooms, by the cicatrices of former pulmonary lesions in those who have died from other causes, that if the normal vitality be restored before the destructive process has gone too far, the disease may be entirely overcome.

If many unrecognized cases are thus cured by nature, may we not follow similar lines and cure the most, if not all, of our cases early after the disease is detected? Undoubtedly, yes.

As it has been frequently demonstrated that spontaneous cures take place, the base of this line of treatment is restored vitality; treat the patient himself. Furnish him with blood so rich in vigorous tissue-building material that it will destroy the hosts of disease germs (there are no more sure germicides than the phagocytes, or pure, rich blood) and, pushing the line of healthy tissue out, gradually but surely reconquer lost territory and heal the lesions already created.

We must at once not only do something to relieve the symptoms, but should hasten to use every means to aid nature's forces both to resist the progress and destroy the enemy.

There have been many vaunted drugs to which cures are attributed, but there is one, namely, guaiacol, which has proven to be one of the most effective drugs, in its action on the tubercle bacilli, that has been added to our materia medica.

Guaiacol is an antiseptic, astringent, styptic, anæsthetic and an escharotic. Guaiacol is an active constituent of creasote; in fact, it is said to be creasote purified. It is best administered in milk or water, in doses of one to ten minims three times daily. It has the advantage over creasote, inasmuch as the dose is much smaller, more palatable to the stomach, and last, but not least, it is less expensive to your patients.

But I desire to insist that whatever treatment we may adopt it must not only be kept up till all symptoms have subsided, but should be continued for at least three to twelve months after all symptoms have disappeared. As I said above, the success of our treatment will greatly be governed by the management of our patients.

All the different cough mixtures have been tried. McArthur's syrup hypophos. co. has an admirable effect, not only in relieving the cough, but as a reconstructive, also; but no one prescription will relieve every cough. Camphoric acid and arom. sulph. acid act nicely in controlling the night-sweats. Atropia and strychnine, in minute doses, are the most desirable stimulants.

Morphine and ergotine combined act admirably in stopping hemorrhages. Cod-liver oil is a drug that has been used to a great extent by our elder colleagues, but its being so unpalatable has brought it into very much disrepute. I have had but little experience with tubercular antitoxin, and think that the good results claimed from its use are greatly due to the perseverance by which the drug is administered.

This subject demands our very careful study and attention; and for any delay upon our part in giving our patients due consideration of their doomed condition, I believe we should be held responsible.

Within the limits of this one paper I was not able to do more than generalize some of the salient points in regard to the symptoms, duration, and prognosis, and make a few comments on the treatment.

Appointed.—Dr. Elizabeth Hurdon has been appointed Assistant in Gynæcology in Johns Hopkins University and Johns Hopkins Hospital. The doctor is the first woman to be appointed on the staffs. Dr. Hurdon is a sister of Mrs. Hill, wife of Dr. Rowland Hill, of this city.

EUREKA SPRINGS, ARKANSAS, AND ECZEMA.

By C. F. Ellis, M. D.

ECZEMA is not only a common disorder, but it is noted for its multitudinous forms, the variety of its eruptive elements, and the many changes it assumes from first to last. It afflicts all classes and all ages, causes untold misery, and brings reproach upon the ablest physicians, the simplest cases often surprising us with their stubbornness, and calling into requisition every resource of the physician.

As to the cause of eczema, the medical world is divided as to how much is constitutional and how much is local. Certain we are that many external irritants are incapable of producing an eczematous outbreak in healthy individuals. One thing we must admit is, the cases giving us the most trouble, defying our skill and remedies, are those in which we find indigestion, constipation, torpid liver, poor assimilation, rheumatic and gouty complaints, and almost always deficient and highly-acid urine. It is for this very class of cases, wherein the system fails to eliminate the used-up material, that the waters of Eureka Springs, Arkansas, are so helpful and potent for good. In this very class of cases we find imperfect oxidation on the part of the liver, the blood becomes loaded with urates, uric acid, and oxalic acid, and the urine scant and intensely acid. The different avenues of excretion are obstructed, and the whole system becomes poisoned with the retention of waste products.

For the successful management of these cases, the proper correction of diet, coupled with the free use of Eureka Springs water, will bring relief to the patient and grateful words of praise to the physician. The positive good produced by these waters in scores of cases of eczema has established such an enviable reputation for them that the medical profession cannot well afford to ignore them as a therapeutic measure.

The following case, one of many, the writer has carefully observed, well illustrates the happy result of their judicious use:

Mr. C., a well-educated and wealthy gentleman of sixty-six years; nervo-sanguine temperament; has been a sufferer from eczema for twenty years. The most eminent physicians and specialists of Europe and America have only managed to alleviate his disease. There is scarcely an inch of his body but has at some time during his affliction been attacked by this protean dermatosis. The face, especially about the eyes and ears, and around anus and over scrotum, were the most severely affected parts when the case came under my observation. The bowels were constipated; liver congested and tender; urine scanty (twenty-eight ounces) and heavy with uric acid and urates; the skin was dry and harsh; the tongue coated yellow; appetite poor with frequent acid eructations. He was advised to use Basin

Spring water, four quarts every twenty-four hours, drinking small quantities at a time, using none for two hours after each meal. He was to take two vapor baths each week; nitrogenous foods were interdicted. In two weeks a marked improvement was observed. The bowels had become regular, the anal and scrotal integument was not bothersome, and the urine was much improved. Desiring to stimulate the kidneys to greater action, Mr. C. was directed to use Magnetic Spring water exclusively, four quarts each day. In the next few weeks the urine rose to sixty-ounces daily and the patient seemed entirely well.

At this time business called him East and I saw nothing further of him for six months, when he returned with a slight touch of his old enemy. The same treatment during a six months' stay eradicated all evidence of his stubborn foe, and he remains well to this date, though two years have elapsed.

Here is a case where the patient had the advice and skill of the foremost specialists for years, which yielded to the mild influence of the purest natural water in a few months' time.

Eureka Springs, Arkansas, is in the northwestern part of Arkansas, on the crest of the Ozarks, two thousand feet above the sea. Pine forest, beautiful scenery, floods of sunshine, air that has health in every breath, and water that wins the heart of every visitor. One night's ride from St. Louis via Frisco; the same from Kansas City via K. C., F. S. & M., and very soon also via Frisco. A sleeper all the way here and numbers of comfortable hotels when you get here, should lead both physician and patient to try Eureka Springs, when well-directed efforts at home have failed to bring the desired result in unyielding cases of eczema.

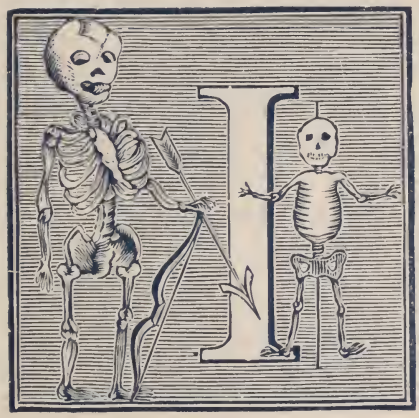
The Salicylates and the Best Means of Administering Them.—It would be a work of supererogation to undertake, at this late day, to prove the great and permanent value of the salicylates in the treatment of rheumatism in its various forms. For over twenty-five years salicylic acid and the salicylates have been recognized as standing at the very head of remedies in this class of diseases.

There are, however, very many and grave drawbacks to the use of either the acid or any of its salts alone in a treatment which may last, as in rheumatism, gout and neuralgia, for a long period of time. Being a powerful antiferment, and sharing this property with most of its salts, salicylic acid impairs digestion and soon sets up a dyspeptic condition almost as intolerable as the pains which it is intended to overcome. Its after-taste can be covered and concealed in no manner yet discovered, so that very soon the patient takes it only with great difficulty.

In tongaline, the salicylates are so combined with corrigents, that there is no reactionary rebellion against them by the organs of digestion and assimilation, while their efficacy is not affected in the least. The experience of thousands of physicians corroborates this statement, and concurs in the fact that tongaline affords the very best method of administering the salicylates.

SCARLET FEVER.[1]

By W. F. WILLIAMS, M. D., of Muskogee, I. T.



I HAVE been appointed to write a paper on scarlet fever; just why it was assigned to me I do not know, but will do my best, although I have had but little experience with this particular trouble, for in twenty-five years' practice I have seen but two mild cases of this disease. As you all know, this is one of the exanthemata or eruptive diseases that prevails to so great an extent in our large cities of the North and West, but not to so great an extent in the South. It derives its name from the color of the rash or eruption. The older writers divided it into three grades—scarlatina simplex, scarlatina anginosa, and scarlatina maligna; but for our purpose the only classification I shall make is that of mild and severe, or S. benigna and S. maligna. The chief anatomical features are the throat symptoms and the eruption. This disease is sometimes ushered in with a chill; sometimes, yes, frequently, with vomiting, and a temperature unusually high. In young children convulsions may occur, a soreness of the fauces and tonsils, and a peculiar redness of a vermilion brightness is seen by careful inspection; epistaxis is not uncommon. These symptoms differ in degree in different cases; in mild cases these symptoms are so slight that the patient does not take to the bed. The average duration of this stage of invasion is about twenty-four hours; the eruption usually appears on the second day.

The Stage of Eruption.—This stage is sometimes ushered in by a slight convulsion in the development of the eruption; the regularity of diffusion *does not* occur as it does in small-pox or measles; it oftener appears on the body or limbs before making its appearance on the face and neck. The first appearance is in the form of minute dots or specks; these coalesce, forming irregular patches, which vary much in size and shape, but always have irregular or serrated margins, the redness momentarily disappears on pressure, and white lines are produced by drawing a pointed hard substance over the reddened surface. It feels smooth to the touch usually, although sometimes the minute papules can be felt, the integument is swollen, and this is very apparent to the patient when the hands are closed. The throat is more or less affected in the vast majority of cases; if a mild case, the throat and tonsils are simply reddened; in most cases the tonsils are swollen, with a white or ash-colored exudation in greater or less abundance. This is not like the membrane of diphtheria; it adheres less closely, is pultaceous, and cannot be detached in strips; the submaxillary and lymphatic glands at the angle of the jaw are frequently swollen and tender. The tongue early in the disease is generally coated; in the progress of the dis-

[1] Read before the Indian Territory Medical Society, at Muskogee, December 7, 1897.

ease this coating is thrown off, leaving the tongue clean and reddened, and the papillæ being enlarged, the appearance is strikingly like a ripe strawberry. This is a pathognomonic symptom, and is peculiar to this disease; it is not always present. The febrile movement is not diminished after the appearance of the eruption, but as a rule is increased. The pulse rate varies much in different cases, and the temperature frequently going to 105° or 106° F. During this stage of eruption anorexia continues, vomiting is not uncommon, sometimes the bowels are constipated, and sometimes diarrhœa is present. There is usually great thirst. The duration of this stage is from four to six days, sometimes not so long, and occasionally longer, even eight or ten days.

Stage of Desquamation.—The commencement of desquamation marks the beginning of this stage; it usually begins with the decline of the eruption and prior to its disappearance. The cuticle is exfoliated, either in minute branny scales, or in pieces of greater or less size. Occasionally, the epidermis of the hands and feet is detached entire, and may be stripped off like a glove. The duration of this stage is indefinite.

Causation.—The communicability of scarlet fever is well established. Of those brought into contact with cases of this disease, a much larger portion contract it than of those not exposed. In both of my own cases it was possible to trace the source of infection. My sister, living at Princeton, N. J., had all her children sick, one after another, with this disease; the youngest one, the last to contract it, died. Sitting in the room beside the body of her little son, she wrote to her only brother, in the Indian Territory, an account of the sickness, her sorrow and loss, with writing materials that had been kept in the sick room. I received the letter and, after reading it, tossed it on the table in the center of the room; but it fell to the floor, and my son, then one year old, picked up the letter, and before long I noticed him chewing the corner of the envolope. I at once thought of the danger, took it away from him and burned it at once. But the mischief was done, and in due time the baby came down with scarlet fever. In the other case, the mother and little girl of seven years had been visiting in Indiana, and had been exposed to the disease there. On their return home this little girl came down with this fever.

I have only noticed the ordinary mild cases. Some of the cases are far from mild, some proving fatal in a few hours or days, and bear little resemblance to the cases described. This disease also has sequelæ which are dreadful—the kidney complication, anasarca, otitis; the aggravated throat trouble (which constituted the S. Anginosa of the older writers)—all of which need to be seen to be appreciated.

The diagnosis is sufficiently easy, so that the careful practitioner ought to make no mistake. The prognosis is widely different in these cases. In malignant cases it is rapidly fatal. The result is always unfavorable when the throat symptoms are unusually severe. The treatment is varied; so much so that it is almost impossible to lay down any particular course.

Some one has said that scarlet fever is only dangerous through the officiousness of the physician. We know this is false, although it may have a germ of truth in it. The wet pack is lauded by some as the best and safest means of lowering the temperature. I have no experience in

this disease, but approve of the pack in other cases. Personally, I should prefer to treat this affection by meeting the symptoms as they arise.

I cannot close this article without referring to belladonna, which is claimed by some to exert a powerful prophylactic influence against this disease. I well remember when a boy at school, the town physician (who, by the way, rejoiced in the euphonious appellation of A. Clapp, M. D., and which the young men always read "a clapp doctor"), visited the school and left directions that every child should take the medicine three times each day—the medicine directed was a solution of belladonna.

I am fully aware that this is not an exhaustive treatment of this subject, but I have told you all that I know and have seen in my experience in this line.

CARBUNCLE AND FURUNCLE.

By A. H. OHMANN-DUMESNIL, of Saint Louis.

CARBUNCLE, or, as it is sometimes called, anthrax, is an affection whose importance is not to be overlooked or lightly estimated. Although it makes its first appearance in the form of a local phlegmon, it has a tendency to become rapidly systemic through the action of the micro-organism which is its cause. This same cause induces a general septicemic condition, which is attended by severe symptoms of such a grave character that it is far from unusual for a fatal issue to be the final outcome of the trouble. Even in the event that recovery should follow, the constitutional symptoms are always of a severe form. The reason for this is apparent, when we take into consideration the cause of the trouble, of which more extended mention will be made later on. An extended bacteriological consideration of the organisms found cannot be given, on account of the limitations imposed by a lack of space.

Carbuncle is an affection which, judged from its general external appearance, appears to be very innocent and harmless, at the time of its inception. Its appearance, however, is always preceded by more or less malaise and a chill of a more or less marked character. The vigor is always of a certain degree of severity and is sufficiently prominent to excite alarm. A frequent accompaniment which is observed among the prodromal symptoms is fever. This may be subject to nightly exacerbation, or it may be continuous in character. The lesion itself seems to be progressive in its nature. It first presents the appearance of a large papule, whose surface presents the appearance of distension, and is glistening and of a brownish-red color. It has what has been very aptly denominated

an unhealthy appearance, made more so in contrast with the bright-red appearance presented by the phlegmonous processes. This condition, however, does not last very long; for, in a comparatively few days, symptoms of suppuration may be noted. It is then that a marked throbbing sensation is experienced by the patient, and intense pain begins to assert itself in the lesion. This pain is of an excruciating character, and is radiating. Whilst continually present, it is heightened by the least touch eliciting sharp cries of pain from the subject of the trouble. Rest is no longer possible, and the wear upon the nervous system becomes rapidly manifest in the altered appearance of the countenance and the emaciation which sets in, as well as the generally debilitated condition which shows itself. Altogether, the condition which is presented is one which leads to the immediate formulation of a bad prognosis.

As the process occurs and develops in the subcutaneous tissues, and only involves the skin later on, the lesion presents the characteristics of a dense, infiltrated, red phlegmon, which varies in size from a pigeon's egg to an orange. The lesion grows very rapidly in size, and the rule in all cutaneous troubles holds here also—that when lesions are very large they are usually single in number, and when small they become numerous. After the process has been going on for some time, suppuration, which has been taking place, manifests itself externally at a number of different points. The pus, which has collected in a sort of basin in the deeper tissues, follows the tracts of the columnæ adiposæ, as has been so well demonstrated by Warren, finds its way to the surface by a number of irregular, ragged apertures, thus giving the carbuncle the appearance of a multiple boil or furuncle. The natural termination of a case in which recovery occurs is by the formation of a slough, either single or multiple. When it is single, the slough comes away whole and in a large mass; when multiple, on the other hand, a number of small sloughs separate, and the tissues which remain are all undermined. In either case, the cavity which results is deep, full of dead cellular tissue, and quite a long time is necessary for a cure to establish itself, which it does by means of granulation. The pus which is formed is far from being as benign as in ordinary cases of suppuration. It affects a greenish color very often, and the sloughs which separate have a more or less fetid odor, masses of decomposed tissue and shreds are cast off, and yet there is an indication of there being more. In fact, the true condition is evidenced by the appearance presented. If a microscopic and bacteriologic examination be made, it will be found that streptococci or staphylococci, or even both, are proliferating in the attacked tissues. These produce a rapid breaking down in the tissue, which is already undergoing degenerative changes, and it is anything but surprising that putrefactive changes should manifest themselves. It is these factors which contribute so largely to render the disease fatal and, when not accompanied by a lethal issue, to so debilitate the whole system of the individual as to make him susceptible to the slightest morbific influence.

As has been stated, carbuncle, as a rule, is single, but in some cases it may be multiple. The parts which are most often affected are the neck, upon its posterior aspect; the back, and the outer aspects of the hips; the upper lip is not infrequently attacked, as also the arms and the legs. An

unusual locality in which I have observed carbuncle is the tip of the nose; and it is the universal consensus of opinion that it is exquisitely painful in this locality. The destruction which it produces is very apt to leave a lasting and very disagreeable deformity. The size which carbuncle will assume becomes quite extensive at times, cases having been seen in which it measured as much as six inches in diameter and proportionately thick.

FIG. 1. Carbuncle.

A case in which quite a large size was attained, and which ultimately recovered, is shown in Figure 1.

The cause of carbuncle is primarily an infection, and the disease, when developed, is itself infectious. How the infection occurs cannot be determined in every case. There is no doubt in my mind that flies are the

most common carriers of the *materies morbi*. There are other insects which are capable of acting in the same capacity. Be this as it may, it is pretty well settled that the cause which is responsible for the trouble is the bacillus anthracis, and, as is well known, it proliferates most rapidly, and has the faculty of not implicating the tissues surrounding the point of infection alone, but also of attacking internal organs. Its absorption is very rapid, and, if the external tissues are at all of a resisting nature, absorption of a universal character and general infection is much more rapid. The evolution of carbuncle is always quick, and from the moment of infection until general symptoms declare themselves occupies but a few days. Suppuration begins at a very early stage, and glandular involvements follow its development very rapidly. The process will arrive at its height in a week, whilst the length of time required for a complete recovery will extend over several months.

The treatment of the trouble is by no means an easy matter. It is absolutely necessary to overcome the anorexia, which sets in early, and place the patient upon a generous and nutritious diet. If the stomach will not bear ordinary aliments, foods easily assimilated and nutritious should be taken. It will also be found necessary to administer stimulants in many cases, and they should be so given as not to interfere with the proper functions of the stomach. They should rather be such as will promote proper gastric action. Medicines, as such, are best avoided; but some effort may be made to reduce the hyperthermic condition which is present, as well as reduce the pain which is constantly making itself manifest. If proper local treatment is carried out, it will be found that this is not so difficult to accomplish; and one of the best remedies to do this is lactophenin. It reduces both pain and temperature, and is safe to use, these being qualities difficult to find, combined to such a marked degree as we find it here, in other preparations.

So far as the local treatment of carbuncle is concerned, it may be divided into two general methods—the abortive and the operative. The former is the better, but, unfortunately, it cannot always be practiced, from the fact that cases are but too often so far developed when they present themselves for treatment that it is too late to make even an attempt to strangulate the disease. The methods of aborting a carbuncle are several. It is very often but little larger than a pin's head when first seen, and then the best method is to excise it. The operation is a very small one and is always effective if performed in the proper manner. A small knife must be employed, and the excision so made that the base is larger than the external part removed. The healing is rapid and no further trouble ensues. When the lesion is larger, it will be found that deep hypodermic injections will accomplish the same thing. They are resorted to in order to prevent the full development of the disease. For this purpose pure carbolic acid, strong solution of bichloride of mercury or campho-phénique will be found most effective and satisfactory in their results. This disposes of the matter, and the artificial inflammation which has been excited is easily allayed. Should the carbuncle, however, have progressed beyond the stage at which it may be aborted, other means must be employed. Hot carbolic acid poultices (10 to 15 per cent.) should be continuously applied, and in a short time there will occur a separation of the slough which will

be found to be limited in its character. As soon as this separation manifests itself the core can be picked out and antiseptic dressings applied. Crucial incisions are recommended, but they are not as good as circular,

FIG. 2. Furuncles. (Destructive Stage.)

for the reason that, as the cuts must be made quite deep, a large surface is opened to infection, and cannot be easily kept clean. Moreover, the infection is immediate and increases the amount already present. In a circular incision the knife can be made to embrace comparatively sound tissue and,

at the same time, remove all which is apt to extend the infection, thus affording a better opportunity to hasten a cure. So far as the size of the ulcer which results is concerned, it really does not make any difference. The ulcer should be treated with antiseptic dressings, and a firm scar will ultimately be the final result.

The prognosis in carbuncle is always a grave one, where the lesion is large. Life is placed in jeopardy by this disease, and the utmost care is always necessary in the treatment of a case.

Furuncle, or boil, as it is most generally known, is also a phlegmonous affection of the integument which is of such common occurrence as to be readily recognized by the laity under ordinary circumstances. And yet it is far from being such an innocent affair as it is generally supposed to be by the great majority of persons. It is essentially inflammatory and acute in character, and its development is a comparatively rapid one, and terminates in suppuration in every case. This suppuration does not merely imply that pus simply forms, but there is, in addition, a necrosis of tissue as well. As the suppurative process extends down into the subcutaneous connective tissue, we have the necrobiotic action proceeding laterally and causing a destruction of those elements which are least resisting, in this manner separating portions of the white fibrous tissue. These form a mass which lies at or about the center of the furuncle and constitutes the so-called "core." When the furuncle is about to form, its first manifestation is in the form of a bright macule, which is followed by the appearance of a bright-red papule surrounded by a marked areola of a somewhat lighter shade of red, but still bright. This papule proceeds to increase in size, displaying a marked conical shape, and becomes not only tender to the touch, but exceedingly painful. After a variable length of time the infiltration at the base becomes quite well marked, and its angry red color gradually fades at its periphery into that of the normal skin. The sensation of tension is quite pronounced, and furuncular patients call attention to this subjective symptom. As the process advances, the skin covering the furuncle becomes thinner and thinner, and finally a bright yellow point is seen at the apex of the core which has developed. This point indicates the presence of the pus, which has collected in a certain quantity. Through its corroding influence the pus finally bursts the very slight and exceedingly tenuous covering overlying it, and a spontaneous rupture occurs, allowing the pus to escape and bring on relief and a cessation of the pain which had previously existed. In the course of the spontaneous rupture the "core" is discharged and a granulating conical cavity left, as shown in Figure 2. This, in the course of time, heals up completely, and a scar is the ultimate result as an evidence of the destructive process which has formerly existed. If the cavity of the ulcer has been at all deep, it usually happens that the scar is depressed at the center and looks somewhat like a dimple. Such, in brief, is the general history of the evolution of a furuncle. A good representation of furuncles healing and cicatrizing is shown in Figure 3. The depression caused by the destruction of tissue may be plainly seen. It is a good picture of the stage which immediately precedes the full formation of the scars.

Whilst it is far from unusual to observe cases in which but one furuncle is to be seen, it is more common to see several on one individual. The

parts most often affected are the neck, the buttocks, the backs of the hands, and the cheeks. The legs are also the seat of these lesions, at times. Occasionally, however, another and a comparatively serious condition

FIG. 3. Furuncles. (Healing Stage.)

arises, wherein a large number of furuncles arise and successive crops follow one another, all portions of the body being affected. There seems to be, apparently, no limit to the number of crops which may occur, and it

would seem that they are due to some constitutional or internal condition. Such condition is known by the term "furunculosis," and it is one which is not only difficult to manage, but is far from easy to eradicate completely and successfully. There are special localities in which furuncles appear in this condition, and one which is deserving of special mention. The pain in this particular locality is of the most exquisite character, and so intense as to nearly drive the sufferer insane. This is the case when there exists furuncle of the external auditory canal. It is only those who have suffered in this manner that can truly realize its intensity; but a faint conception may be formed of it by observing the agonized expression which distorts the features of a patient so afflicted.

In furunculosis there are general symptoms which are marked, and which may prove not only alarming, but be dangerous, as well. Pallor and emaciation set in early as a result of the loss of sleep and constant drain upon the vitality which exists. For that there is such a drain is evidenced by the presence of rigors, chills, and high fever, which are observed as a result of a pyemia due to the absorption of a certain amount of pus, which does not find as free an exit as it should. In some cases these manifestations become so serious as to actually threaten life, and it is for this reason that prompt and energetic measures should be taken in every case. It is a fortunate circumstance that, in the majority of cases, the crops of furuncles are small, and the individual lesions themselves are not very large. They readily discharge their contents, but still render the existence of the one subject to them miserable. The constant irritation to which the boils are subjected by the friction of the clothing or of dressings is an annoyance which is almost unbearable.

The treatment of furuncle should be both general and local. Depletion of the entire digestive tract should be established, and this would be best accomplished by a mercurial purge, followed by a saline. This, however, is not sufficient, by any means. A course of treatment calculated to overcome the tendency to suppuration and the further formation of furuncles must be adopted. Sulphide of calcium has been looked upon as a specific for this purpose, and it has acted well in some cases, for which reason it was highly lauded. Many observers have failed to obtain the good results claimed by others, so that this remedy cannot be looked upon as the unfailing specific which it was claimed to be in all local suppurative processes. The doses which have been recommended vary from one-sixth of a grain every two hours to two grains three times a day, in pill form. I have had good results in furunculosis, not only during the existence of the trouble, but by a persistence in its use, for the prevention of its recurrence, in the use of arsenauro. It is easily taken, occasions no gastric disturbance, and produces quite marked results. The dose to be given varies from eight to fifteen drops in water, three times a day, after meals. No claim is made for it as a specific, but still much dependence may be placed upon it, and good results obtained from its use.

Locally, prompt evacution of the lesions is necessary, as well as the withdrawal of all "cores." If the furuncles have not yet reached the suppurative stage, scarifying freely and deeply will relieve the tension, and suppuration then can be prevented by proper antiseptic dressings. When the pus has been evacuated, the lesion should be washed out with peroxide

of hydrogen, and then dusted with campho-phénique powder and covered with gauze. In case some undeveloped furuncles are scarified, and suppurating ones emptied, a good dressing to apply after the use of the peroxide of hydrogen is the following:

℞ Pulv. campho-phénique ..... ʒj
Ung. aquæ rosæ ..... ℥j
M.

Or a five per cent. carbolic acid ointment may be employed. In all cases the dressings should be repeated daily.

Constant care is necessary, and watchfulness exercised. If the vital forces become depressed, it may be necessary to stimulate the patient; and for this purpose vin mariani has no superior. Under the treatment outlined, not only will a good recovery ensue, but there will remain no disfiguring scars.

The Medical Excursion in June to Denver and Salt Lake City.—The American Medical Association meets at Denver, June 7th to 10th. One of the features of the gathering will be an excursion from Denver to Salt Lake City and return via the D. & R. G., Colorado Midland and Rio Grande Western Rys., through the "Heart of the Rockies," furnishing a splendid opportunity to view the most magnificent scenery on the American continent. Salt Lake City is an ideal summer resort, and the bathing at Saltair in the Great Salt Lake—inland salt sea, nearly a mile above the sea level—is superb in June. There are more attractions in and about Salt Lake City than any place in the world. Later notice will appear in this publication, giving rates for this excursion and all details. In the meantime send to F. A. Wadleigh, G. P. A., Rio Grande Western Ry., Salt Lake City, for copy of pamphlet on Salt Lake City and the Rocky Mountains.

Rocky Mountain Views.—Set of six beautiful Albertype views of Rocky Mountain scenery, including Royal Gorge, Garden of the Gods, Summit of Pike's Peak, Castle Gate, Glenwood Springs, etc., on 11x14 paper, with wide margins suitable for framing, sent to any address, post-paid, upon receipt of fifty cents, by F. A. Wadleigh, G. P. A., Rio Grande Western Railway, Salt Lake City.

The One of Many.—Among the testimonial letters received from physicians by the manufacturers of imperial granum, is one in which they take even more than usual pride, and from which we quote as follows: "I am sending you a photo. of my little two-year-old boy, who has been raised nearly altogether on imperial granum. He was very delicate, and we had a great deal of trouble with him owing to his weak digestion, and I feel that your imperial granum saved his life. He never tires of it, and it is the only one of the many prepared foods that seems to agree with him."

Samples of this justly celebrated dietetic preparation are sent to physicians on request.

FORMULAE.

Hypodermic Purgative.—Fifteen minims of the following will produce purgative effect:

℞ Caffein ..... gr. viiss
Chloral ..... gr. viiss
Water ..... *m.* lxxv

M.—*Med. Mod.*

A Local Anæsthetic for Extraction of Teeth.

℞ Menthol ..... gr. 160
Tinct. myrrh ..... drops 80
Alcohol ..... ʒ ij

M. Sig.—Thoroughly dry the gums and apply freely for a few minutes. Use more freely for a permanent than a deciduous tooth.—*Pediatrics.*

Uræmic Headache.

℞ Pot. citrat ..... ʒ ij
Spts. juniper ..... ʒ iv
Eth. nit ..... ℥ ij
Inf. scopar ..... ℥ vj

M. Sig.—Wineglassful three times daily.—DR. Day, *New York Medical Record.*

Neuralgia.

℞ Menthol ..... ʒ j
Guaiacol ..... ℥ j
Alcohol ..... ℥ xviij

M. Sig.—One dram of this mixture to be rubbed lightly into the affected part two or three times a day.—SABBALINO, *New York Medical Record.*

Hemorrhoids.

℞ Anusol ..... gr. 112¼
Zinc ozide ..... gr. 90
Balsam Peru ..... gr. 12½
Ol. coco ..... ʒ v
Ung. cer ..... gr. 40

M. Ft. Supp. No. xii.
Sig.—One every evening. In severe cases, one morning and evening. Anusol is the iodo-resorcin-sulphonate of bismuth. TIMMERMANN, *The Therapist.*

Alopecia.

℞ Resorcin ..... ʒ ij
Salicylic acid ..... gr. xxx
Castor oil ..... fl. ℥ j
Rectified spirit ..... fl. ℥ vj
Oil of bergamot ..... fl. ℥ j

M. Rub well into the scalp every night. When greater stimulation is desired, one may use:

℞ Mercuric chloride ..... gr. xij
Betanaphthol ..... gr. xl
Castor oil ..... fl. ʒ ij
Rectified spirit ..... fl. ʒiij
Bay rum ..... fl. ʒiij

—SCHAMBERG, *Polyclinic.*

Applications to Insect Bites.

℞ Camphorated oil of chamomile ..... parts 100
Liquid storax ..... parts 20
Ess. of peppermint ..... parts 5—M.

℞ Olive oil ..... parts 20
Storax ointment ..... parts 25
Balsam of Peru ..... parts 5—M.

℞ Naphthol ..... parts 5 to 10
Ether, enough to dissolve it.
Menthol ..... part ¼ to 1
Vaselin ..... parts 100 —M.

—*New York Medical Journal.*

Conjunctivitis.

℞ Acidi borici ..... gr. x
Pulv. aluminis ..... gr. ss
Aq. dest ..... ʒ j

M. Sig.—Drop in eye two or three times a day. (Catarrhal form.)—KEYSER.

Pills for Constipation in Children.—Pruys (*Jour. de Medecine de Paris*) is credited with the following:

℞ Ext. of cascara sagrada ..... gr. 30
Ext. of frangula ..... gr. 15
Powd. aloes .....
Powd. gentian ..... aa gr. 60
Medicinal soap ..... q. s.

M. Divide into eighty pills. Sig.—From one to four pills to be taken at bedtime.—*N. Y. Med. Journal.*

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THE TRI-STATE MEDICAL SOCIETY.

The Tri-State Medical Society of Iowa, Illinois and Missouri will meet at Dubuque, Iowa, April 5 and 6, 1898. More than thirty papers have been promised by some of the brightest men of these three States, and nearly two hundred members have already expressed their intention to attend, so it may be predicted that this will be one of the best medical meetings ever held in the West. Dr. Howard A. Kelly, Professor of Gynæcology in Johns Hopkins University, Baltimore, will be present and demonstrate his method of catheterization of the ureters. There is still room on the program for a few good papers. Titles may be sent to either Dr. J. W. Fowler, Secretary, Dubuque, Iowa, or Dr. Emory Lanphear, President, St. Louis, Mo.

DR. OUTTEN'S BOOK.

With this issue we begin the publication of "Man's Inherited Martyrdom—A Fitful Study of Degeneration," which has been written by Doctor Warren B. Outten, Chief Surgeon of the Missouri Pacific Railway, and one of the best-known of American medical writers.

Doctor Outten's latest work deals with degeneration and allied subjects in a pleasing and instructive manner. In the first chapter the reader

is made acquainted with Theodorus and others of the Bombastesian Cohort. The great deeds accomplished by the members of the Cohort, and their strange adventures, will be described in subsequent chapters.

THE STATE MEDICAL SOCIETY.

The Missouri State Medical Association will meet at Excelsior Springs in May. A large attendance is expected, particularly from the country. Never before has it happened that so large a proportion of the papers has been furnished by the country doctors. Usually St. Louis and Kansas City doctors have had about nine-tenths of the papers, but this year thirty out of fifty papers now in the hands of the Committee on Scientific Communications have been written by doctors living outside of the two metropolitan cities of the State. Subjects of papers may be forwarded to any member of the Committee on Scientific Communications: Dr. Emory Lanphear, chairman, St. Louis, Mo.; Dr. Joseph Sharp, Kansas City, and Dr. C. N. Wallace, St. Joseph.

Excelsior Springs can furnish ample hotel accommodations, and everybody will have an enjoyable time at the next meeting of the State Association.

ABOUT HOMŒOPATHS AND ECLECTICS.

We have long believed that medical education in the so-called regular schools is at about as low an ebb as can be reached. The majority of western schools have been known to graduate students who cannot spell the English language, and some of the "professors" are in the same pitiable plight. The last number of the *American Journal of Surgery and Gynæcology* has the following to say:

"Kansas has taken the lead in the matter, as she so often does in matters of reform. This year the 'regular,' the 'homœopathic' and the 'eclectic' societies are to meet at the same time and place, and some joint sessions will be held to take united action for the purpose of securing needful medical legislation in that State. What will be accomplished remains to be seen, but it is not at all unlikely that if the American Medical Association were governed by liberal-minded gentlemen, and would permit such action, these three bodies of Kansas medicine men might be amalgamated, with the effect of forming one powerful organization, which could be wielded for the public good, effectually and speedily. As it is, each must of necessity remain suspicious of the other, and antagonize rather than support any measure which might possibly give the rival a supposed advantage.

"All this is unnecessary, disgusting, in this day of liberalism. There is in man no stronger impulse to fight than in defense of his religion; yet at the close of the nineteenth century, under the broadening influence of liberal education and the democratic spirit which is affecting men of every clime, religious barriers are melting as ice in the summer's sun. Why, then, should the less important divisions between medical sects remain undisturbed? They are out of harmony with the day in which we live.

"The old plea that homœopaths and eclectics are ignorant, or not well grounded in the fundamental branches of medicine, no longer holds good. To-day the average graduate of one of the 'sectarian schools' is

'as well posted' (to use a purely medical expression which originated when and where no one seems to know) as his 'regular' opponent; the course of instruction he had was just as thorough, just as liberal, just as complete (except in the one item of materia medica), and the terms of admission to the school probably higher than those which governed the other. He may be a gentleman of unquestioned integrity and of high personal worth; of undoubted professional honor, and an opponent of all disgraceful methods in obtaining 'business.' (We say 'business' nowadays, almost unconsciously, where our forefathers used the word 'practice;' our greeting to a physician is, 'How is business?'—not, 'How is your practice?' And it shows the predominance of the commercial over the professional; another sign of the degeneracy under discussion.) But this man is barred from membership in the local or State medical association because these bodies would, the members presume, forfeit their right to representation in the American Medical Association by admitting him to membership, even if he does not practice under a sectarian name nor seek to obtain practice by proclaiming himself a homœopath or an eclectic. It is not right; it is not 'ethical' in the ethics of common sense, common decency, or of common manhood.

"What is the remedy for this one great cause of degeneracy? Let every city and county medical society in the country which is in affiliation with the American Medical Association pass this resolution and instruct its delegates to vote for it:

"'*Resolved*, That henceforth all local and State medical societies in affiliation with the American Medical Association, be permitted to admit to full membership any graduate of a reputable homœopathic or eclectic college who is an honorable man, a conscientious practitioner, and who does not use the name 'homœopath' or 'eclectic' upon his sign or card, or in any other manner calculated to secure business upon the assumption that he is practicing some peculiar system of medicine.'"

A CORRECTION.

In our last issue an admirable article, "Report of a Case of Fatty Degeneration of the Heart, a Sequel of Influenza," was credited to Dr. Lyman Carson Hay. The article in question was written by Dr. Eugene Carson Hay. The mistake occurred in this office, and we are profoundly sorry.

SOMETHING ABOUT UTAH.

The American Medical Association will convene in Denver in June. Hundreds of physicians will not only visit the scenes of interest to be found in Colorado, but will travel over the picturesque Rio Grande Western Railway to Utah—the land of polygamy, great scenery, Salt Lake, and glorious climate. We give herewith a brief account of this wonderful region.

Utah extends from 37° to 42° North latitude, and from 32° to 37° West longitude, and is an almost exact square, three hundred miles each way.

It has an area of 87,750 square miles, or 52,601,600 acres; of which 2,780 square miles, or 1,776,200 acres, are water. It is 11,420 square miles, or 7,308,800 acres, larger than Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, and Delaware, all combined; and there is no region of equal area on the globe that overflows with more abounding and diversified riches of resource and possibility.

Climate is not regulated by latitude. Ocean currents and altitude are potent factors in it. The snows of untold ages lie unmelted on the lofty peaks of the Cordilleras in Mexico, the Andes in South America, and the Himalayas in Hindostan. Alaska, in the latitude of Greenland, has a climate little more rigorous than that of Ohio. Washington and Oregon, in the latitude of hard-frozen Maine and blizzardy Dakota, where it is mid-winter seven months of the year, and very late in the fall the other five, bask in the sunny mildness of Virginia and Carolina; and California, on the same parallels with Nebraska, Kansas and Oklahoma, raises oranges, bananas, pine-apples, figs, lemons and pomegranates. Utah, in the latitude of Missouri, where the mercury often runs the whole length of the thermometer in twenty-four hours, enjoys a climate as balmy and as equable as the airs that breathe over Araby the Blest. For fourteen years the mean temperature in Salt Lake City was about fifty-two degrees, the average maximum being ninety-seven degrees, the average minimum minus one, and the mean daily range of the mercury but twenty degrees. Cotton grows luxuriantly in the southern part of the territory, and all the semitropical fruits flourish everywhere within its borders; and yet there is not a day in the year when one cannot, if he will, wallow in a snowdrift fifty feet deep, or seat himself on an iceberg a hundred yards square, by climbing a few miles up a mountain-side. During the month of August, 1891, the whole eastern and southern portion of the United States, and even the vauntedly paradisiacal Northwest, sweltered and seethed with torrid heat. Apples baked on the trees around Chicago, that brazenly proclaims itself "the great lake-side summer resort of North America." People died of sunstokes and calorical prostrations from Winnepisseogee to Corpus Christi

FIG. 1. Views on Line of Rio Grande Western Railway.

—that is, from Maine to Texas. Even in the alleged "glorious summer climate" of Minnesota and Dakota, the thermometers boiled over with a hundred and ten to a hundred and fifteen degrees of hideous hotness in the shade. Milwaukee refrigerators turned to steam-boilers; pop-corn popped instead of sprouting in the Iowa and Missouri hills, and a universal wail of sweaty anguish went up to skies of red-hot brass from the whole wretched land and people. And, in all the time, there was not a night that Salt Lake City people did not sleep under blankets, and not a day when they could not see the huge masses of snow on the Wasatch Mountains glistening white and cold in the August sunshine; while, at the base of the mountains, which slope down almost into the eastern edge of the city, the whole earth was hidden in the foliage and fruit and flowers of orchards and vineyards and gardens. Low latitude gives heat, and high altitude gives cold; so every fellow can mix his own climate and weather to suit himself. Here, as nearly as anywhere else in the temperate zone, might be realized that boyish ideal of a home: A tall, glacier-crested mountain in a tropical region. At its base, plantations of sugar, coffee, rice, indigo and spices; orange, palm and mango groves; and forests of mahogany, ebony and rose-wood, with myriads of gorgeous-plumaged parrots, toucans and macaws flitting like winged bits of rainbows among their leafy boughs. Midway up the sloping side, at an elevation of eight or ten thousand feet, are fields of corn, wheat, oats and barley.

FIG. 2. Saltair Beach. Rio Grande Western Railway.

No eye, inured to the atmospheric murkiness of New York or Chicago, can make the strip of blue-green water between Lake Park bathing-beach and Antelope Island in Great Salt Lake seem wider than the Upper Hudson or Ohio river; though it would take a nine-mile pull to cross it at its narrowest place. With its marvelous commingling of salt-sea air and mountain ozone, with its highness and dryness, with an atmosphere as soft and pure as that which fanned the cheek of sinlessness in primeval paradise, Utah is one of the world's great natural sanitariums.

From the strange, Deity-wrought alchemies of the mountain-sides all over the territory burst forth magical fountains of healing for invalids of almost every class. Nearly every variety of medicinal waters known

to humanity is found somewhere in this pharmacopeian wonderland. Hot springs, that possess all the virtues of those in Arkansas, pour hissing and steaming from the cliffs at Ogden, Salt Lake City, Castilla and a score of other places. Lithia springs, as potent as those of Carlsbad or Homburg, and sulphur springs of every kind—white, red, black, blue and yellow, hot and cold—as well as soda, magnesia, alum, and others.

The most wonderful thing in Utah is the Great Salt Lake. When, in February, 1846, twenty thousand Mormans, under the leadership of Brigham Young, started from Nauvoo, Illinois, on their two-thousand-mile pilgrimage through the trackless wilderness of the American West, they proclaimed themselves the modern Israel in search of the promised land. It was a strange fate, or destiny, or Providence, that led them to a region so similar to the "Land of Promise" of Israel of old. There, the lake of Gennesaret, or sea of Galilee, was fresh water and full of fish. The Jordan river flowed out of it and emptied into the Dead Sea, which is so salt and acrid that no living thing is found in its waters. Here, Provo or Utah Lake is fresh and sweet, and its limpid waters swarm with speckled trout and other fish as savory as any that strained the nets of Peter, James and John. Out of it flows the Mormon River Jordan, and after rambling for forty or fifty miles through orchards and meadows, grain fields and gardens, pours its silvery tide into Great Salt Lake, the saltiest body of water on the globe, surpassing even its Judean counterpart by one and a half per cent. In the Holy Land the Jordan flows from north to south, while the Utah Jordan flows from south to north. Mount Nebo stood like a giant sentinel overlooking the ancient "land flowing with milk and honey," and here Mount Nebo, lifting its crown of eternal snow twelve thousand feet heavenward, stands guard forever over a fairer Canaan than Moses viewed, but never entered.

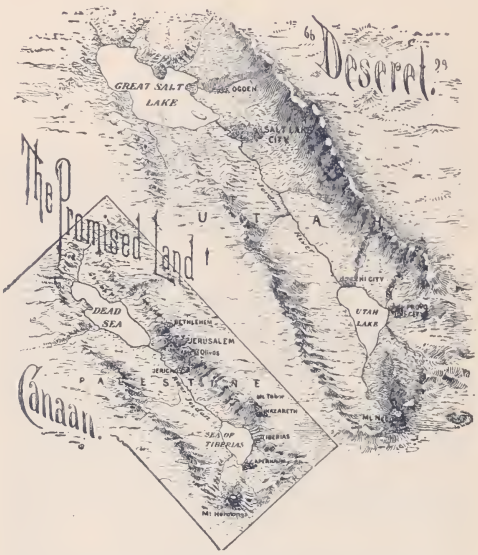

FIG. 3. The Promised Land and Canaan.

Salt Lake was once as large as Lake Huron, and was over a thousand feet deep. Its former benches and the marks of its olden wave-plashings are as plain upon the mountain-benches as though traced but yesterday. It is now about a hundred miles long, with an average width of from twenty-five to thirty miles. It is from fifty to sixty miles wide in some places, and its greatest depth is about sixty feet. Its waters contain eighteen per cent. of solid matter, mostly salt and soda, with small proportions of sulphur, magnesia, calcium, chlorine, bromine, potassium, lithia and boracic acid. The Asiatic Dead Sea water contains twenty-three per cent. of solids, including less salt and soda and much more mag-

nesia, calcium and potassium than Salt Lake. Atlantic Ocean water holds but 3.5 per cent. of solid material, of which salt constitutes 2.6 per cent. Hundreds of thousands of tons of salt are made by natural evaporation along the shores of the lake, and at one place near Salt Lake City a windy night never fails to pile up many tons of soda, eliminated by the movement of the waves.

Compared with this vast liquid treasure-house of riches, the greatest bonanza mines of Utah or of the United States dwindle to blind beggars' penny boxes. Take out your pencil and do a little figuring. Figures, it is said, will not lie, and you will soon find yourself standing dumfounded before your own mathematical truths.

Say Salt Lake is a hundred miles long, and has an average width of twenty-seven miles; that gives an area of 2,700 square miles. There are 27,878,400 square feet in a mile; so the lake has an area of 75,271,680,000 square feet.

In the following article is something about the magnificent scenery of Colorado to be found along the line of the Denver and Rio Grande Railway.

COLORADO SCENERY.

By STANLEY WOOD.

Colorado is the land of color, the land of form, the land of startling variety. Monotony is an unknown quantity, beauty is present everywhere, while grandeur greets the reverent eyes of all who traverse the fastnesses of her Rocky Mountains, those everlasting hills that tower, snow-crowned, as if to pierce the bright and stainless blue of the sun-illumined sky.

The man who writes about the material resources of Colorado has the advantage, for he can tell how many bushels of wheat can be raised to the acre, and how much per ton the gold and silver ores will produce, but no one can estimate the value of a mountain view, nor assay the amount of gold and silver in a Colorado sunset. The artist has colors that can give some idea of the Harlequin-hued rocks that defy the reproductive powers of the most skillful word-painter, but no one can behold the beauties of this land, be he poet, painter or the more prosaic man of business, without a desire to impart to others, less fortunate than himself, some of the pleasures he has enjoyed in this home of the picturesque and the beautiful.

Every variety of scenery can be found in Colorado, from the vastness of the level plain, extending to the far horizon's rim, to the vastness of the mountains, climbing in splintered pinnacles to the very zenith. Cañons whose abysmal depths awe the soul of the beholder, valleys whose Arcadian loveliness delight the heart, rivers whose rushing waters thrill with their tumultuous sweep, mountains whose serried ranks terrify with their stupendous magnificence, forests whose frost-touched foliage glows with tints of fire or glooms with the dark beauty of balsamic pines, brooks crystal in their clearness, singing sylvan songs over golden gravel, waterfalls like festoons of filmy lace ornamented with a fretwork of diamond water-

drops, flowers that "paint the meadows with delight," or bloom amidst eternal snows, all these are found in this land and form a symphony, whose haunting beauty once having been experienced can never be forgotten.

A COMPARISON WITH EUROPE.

Some one has said that "Colorado is the Switzerland of America." The comparison would be truer if it were stated thus: "Switzerland is the Colorado of Europe." History, tradition, fashion, have cast their spell over the hills of Switzerland, and the Alps have become the synonym for grandeur. Cast the glamour of romance over the mountains of Colorado, twine the tendrels of tradition around the brow of Sierra Blanca, turn the tide of fashion toward the West, and then compare the Rocky Mountains with the Alps upon equal terms. Or reverse the process, strip the Alpine heights of their garniture of legendary lore, and with unbiased mind measure their magnificence with that of the great rocky range. Then, and then only, can a just comparison be made. If extent be a measure of merit, then the great mountain system that belts the North American continent is assuredly superior to the lesser boldric of Switzerland, but aside from this the variety and the grandeur of our own home mountains must command the admiration of all who behold them and enforce the concession that even though the scenery be American, it equals in all cases and excels in many that of much-lauded Europe.

As an illustration of the vastness of the mountain system that sweeps across the heart of Colorado, attention is called to the fact that there are seventy-two peaks in the State reaching an altitude greater than 13,500 feet above the level of the sea, and yet unnamed! What a plenitude of scenic wealth must there be where such giant mountains as these are ranked with the common herd of nameless foot-hills.

It is too much the custom for Americans to visit Europe in search of the grand and beautiful in nature, ignoring the fact that our own country contains scenery unexcelled in these respects by that of any other part of the world. As a compensation, however, the Rocky Mountains have become the goal of a large European travel, and this class of tourists is becoming larger each year, as the attractions of Colorado's scenery are becoming more widely known.

FACILITIES OF TRAVEL.

There is one factor which has led to a greater knowledge of the sublimity of the scenery in the great mid-continental region, and that is the ease with which it can be reached. Great trunk lines of railroad penetrate the West from the large centers in the East, and the Denver and Rio Grande Railroad, scenic line of the world, radiates through wild and picturesque passes and cañons into the very heart of the mountains. It is a remarkable fact that some of the most magnificent scenes of this land of wonders can be viewed from the car windows as the tourist travels through the Rockies. The days of difficult journeying are over, and the most delicate woman, or the man unused to "roughing it," can now visit scenes of rugged grandeur without any more effort or fatigue than is entailed by a journey over level plains amid the pastoral beauties of a less romantic country.

Royal Gorge.

TYPES OF COLORADO SCENERY.

Generalities, while they serve to give a broad conception of any subject, must of necessity fail to make a sharp and clear impression upon the mind. What has been said about the scenery of Colorado has been in a general way, therefore it is pardonable to now refer more specifically to some of the attractions which this State possesses, and which are famous the world over. Reference has already been made to the seventy-two peaks in Colorado, each one over 13,500 feet in height, and none of them possessing a name. This does not imply that there are no famous and well-known mountains. Pike's Peak needs but to be mentioned to command instant recognition, made easy of ascent by a cog railroad more remarkable than that of the Rigi Kulm. It affords views of wider sweep and greater variety than those of the famed peaks of Switzerland. History has made it famous, and this landmark, which was the goal of the adventurous prospectors of 1859, is to-day the object of universal admiration. Around the peak cluster scenes of inspiring loveliness. The springs of Manitou are the center of a region of sylvan beauty, while the Garden of the Gods, renowned in song and story, is unsurpassed in splendor and unique magnificence. Cheyenne Mountain, made known to the world by the poetic pen of "H. H.," and rendered sacred as her last resting place, contains cañons of transcendent charm, but the great cañon of the Rockies, the glory of which, once beheld, can never be forgotten, is the Royal Gorge. This stupendous chasm, in the riven heart of the Front Range, through which the rushing waters of the Arkansas river pour impetuously out upon the plains, defies description and yet demands it. Through frowning walls of granite, towering to a perpendicular altitude of nearly three thousand feet, the foaming waters race, broken into swirling rapids and dashed into lace-like spray by the giant boulders that impede their impetuous onset. This is but one, though perhaps the greatest, of the many cañons of Colorado. The cañon of the Rio Las Animas, the weird Toltec Gorge, the mine-pierced walls of Eagle River Cañon, the wonderful Black Cañon, the glorious cañon of the Grand river—each possesses attractions peculiar to itself and differing from all others, as one star differs from another in glory.

The mountain passes present another and entirely different scenic attraction. The dark and tortuous cañons penetrate the heart of the mountains, while the passes take one up sharp inclines almost to their towering summits. From the top of one of these passes the view is wide-horizoned, embracing an expanse of hills, valleys and mountains that enchants and at the same time bewilders the vision. As has been said, variety is one of the striking characteristics of Colorado scenery. Cañons, peaks and passes awe with their grandeur; but lakes, whose crystal mirrors reflect the cerulean hues of peaceful overarching skies, abound, hundreds of them unhonored and unsung; but others, known to the lovers of the beautiful, are enshrined in the annals of literature. Twin Lakes have a fame extending beyond the confines of their mountain environment, while Palmer Lake is known to thousands who have beheld its quiet beauty and marveled at its wonderful situation on the crest of the Divide, sending its waters southward to the Arkansas and northward to the Platte.

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ORIGINAL ARTICLES.

LESSONS FROM EXPERIENCE IN ABDOMINAL SURGERY.[1]

By HENRY T. BYFORD, M. D., of Chicago.

NO MAN'S education is complete until he has taken a few lessons from experience. The abdominal surgeon, of all men, requires this kind of teaching, and he is not fit to be trusted to take care of all cases as they come to him until he has assisted at or had the assistance of an expert at a hundred peritoneal operations, at the very least. If all patients requiring abdominal section were our own sisters, mothers or daughters, I think that we would soon agree upon this proposition. What I here report will, I think, bear me out in this statement.

As there are some young men in this audience who may be called upon to do abdominal section, and who believe that they still have something to learn, I have thought that it might be of interest to them to review, briefly, a few of my early fatal cases, and point out my mistakes for their benefit.

My first three abdominal sections were all difficult ones; two were for ovarian cystomas developed in the broad ligament, and the third and fatal

[1] Read before the Tri-State Medical Society, at Dubuque, Iowa, April 5, 1898.

one for a large carcinomatous ovarian cystoma, complicated by ascites, and with adhesions to the abdominal parietes and within the pelvis.

My mistakes in this fatal case were that I did not diagnose malignancy beforehand, did not realize the extreme weakness of the patient, and did not thoroughly check the oozing from the parietal adhesions. The patient died in ten hours after the operation, from exhaustion. I should have checked the oozing more perfectly, and have used strychnine, digitalis, and diffusible stimulants freely, both before and after the operation. Saline transfusion was not then known.

My second death was due to a slipping of the ligature and hemorrhage from the pedicle of a large ovarian tumor. I was absent for a few hours after the operation, and opened the wound and sewed up the broad ligament *too late* to save the patient. Direct transfusion was unsuccessfully tried. My mistake was in not tying the pedicle tight enough, in not being on hand to reopen the abdomen promptly, and in not having at hand better facilities for transfusion. Saline transfusion was still unknown. I was a diligent reader at that time, and had other surgeons who had had the same experience written more often concerning its warnings, I might have been forearmed.

My next death was due to the same cause, and I am glad to be able to say that it was the last death of that kind in my experience. I now pass my thread through the ovarian ligament and the fibrous edge of the broad ligament near the pelvic brim, tie tightly, and leave plenty of stump beyond the ligature. By using these precautions, and by tying fleshy stumps in several parts, I am able to avoid the accident.

My next death was due, indirectly, to tapping an intraligamentous ovarian cystoma, but directly to leaving a sponge. I tapped the main cyst. Noticing that the withdrawal of the trocar was followed by some external hemorrhage, I feared internal hemorrhage, and made hasty preparations for an immediate operation. The enucleation of the cyst was slow and tedious, and the nurse got mixed up in her count of the sponges and told me, as I finished, that she had them all. The present methods of counting sponges and of putting tapes on them had not then been recommended, nor was this danger in those days appreciated. I am sorry to say that this accident has happened to me once since. I now use gauze sponges, have a certain quantity prepared, and use tapes on all that are to be buried from sight.

My next death was from exhaustion due to the severity of the operation and constant vomiting for the forty-two hours that she lived. The temperature was low throughout. An ovarian tumor was developed in the left broad ligament large enough to push the uterus up behind the pubes, and a pyosalpinx was adherent on the right side. The patient was under ether nearly four hours, and the rectum was torn. I opened up two sutures twelve hours before death and separated the intestines from the incision and from each other. The rectal wound was adherent to the sac of the left broad ligament near the incision and had held perfectly. I inserted a drainage tube. The condition after the second operation was the same as before, the pulse ranging from 136 upward. I had not had sufficient experience to perform so difficult an operation.

My next death was from septicemia in a case of ovarian cystoma

developed in the broad ligament, and was due to a leakage in the broad ligament sac that was stitched into the abdominal wound. This accident has never happened to me since. Besides, we now know that such sacs can be better drained into the vagina. It may be interesting to state that the patient regurgitated all that was swallowed, and that neither gas nor feces could be made to pass per rectum, although salines and glycerine enemas had been given repeatedly. About forty-four hours after the operation the abdominal wound was opened up, the leak found and repaired, the blood washed out, and intestinal adhesions separated. Soon afterward the patient had a free movement from the bowels; but she died in four hours, apparently of shock.

My mistakes were want of carefulness in sewing up the sac and delay in performing the secondary operation. I had not had the experience to enable me to decide to do the latter sooner.

My next death was from septic peritonitis, forty-eight hours after an ovariotomy for adherent ovarian papilloma. The tumor went to pieces in being enucleated from its bed of adhesions. My mistake was in not being sufficiently careful in cleansing the peritoneal cavity. The patient was weak, and I tried to operate quickly. However, the pedicle was infiltrated and the pelvis infected, and she might not have survived under other hands than mine; and if she had, would soon have died of a recurrence.

My next death was two weeks after the operation, from septic exhaustion, due to an abscess in the thigh following a hypodermic injection. The patient had had double pyosalpinx for many years, and came to me in a septic and exhausted state. My mistake was in not doing more to strengthen her before the operation, and in allowing a careless nurse to give the hypodermic injection. The post-mortem showed perfect results within the abdominal cavity.

This is the second death traceable directly to a nurse. Several similar, although less grave experiences, have led me to believe that many bad results are obtained and many lives are lost through the imperfect training of nurses in antiseptic technic.

My next death was that of an exhausted patient, six days after an operation for pyosalpinx. The drainage tube had failed to drain a small space situated laterally at the bottom of the pelvis. At the autopsy an abscess was found. My mistake was probably an imperfect technic and a failure to recognize the presence of the newly-formed abscess.

My next death was from septic peritonitis, six days after an ovariotomy for a dermoid cystoma the size of an adult head, universally adherent in the pelvis. It took all of my strength to tear the sac loose from the sacrum. My mistake was inexperience, and, possibly, an imperfect aseptic technic.

Since I have learned to operate with a minimum of disturbance of the intestines, I find that my results are infinitely better. In desperate cases like the above I prefer to perform vaginal hysterectomy, then remove the tumor, or as much of it as can be removed, per vaginam, and pack the oozing bed with gauze.

Whether the next death was due to exhaustion or sepsis, I can scarcely decide. The patient was very feeble, and had a large uterine tumor for

which I made an exploratory incision. I found it to be sarcoma with universal adhesions. I separated some of them, but finding that I was unable to go ahead I closed the wound and left a little gauze between the edges of the incision to afford exit to the oozing from the surface of the tumor. The tumor was so soft that, inexperienced as I was, I introduced a small trocar in search of fluid, and was obliged to leave it in place for twenty-four hours to arrest the resulting hemorrhage. Although scarcely any blood was lost, the patient was very weak after the operation, and gradually grew weaker and died in forty-eight hours. Flatus passed freely per rectum, and there was no sign of sepsis until a few hours before death, when the temperature began to rise.

My mistakes were in not fully appreciating the patient's weak state, in not examining uterine scraping for a definite diagnosis, in puncturing the tumor, and, perhaps, in not obtaining and maintaining sufficiently aseptic surroundings. In my early practice I always found it difficult to doom a patient to certain death without giving her the chance of an exploratory incision and a possible curative operation, and sometimes operated when I ought not to have done so. With regard to sepsis I had not sufficiently developed an aseptic technic to preclude the possibility of infection from assistants and nurses.

My next patient died on the table with the operation not quite completed. The tumor was a uterine sarcoma pressing against the diaphragm, composed of several lobes, two of which were each the size of a pregnant uterus at term. It was adherent everywhere, and to everything. The bladder was perforated, and the rectal and vaginal adhesions bled profusely and required suturing after separation of the tumor. It filled the pelvic and abdominal cavities tightly and completely. The broad ligaments had to be sewed up and large vessels ligated on all sides of the tumor, above and below. If I might be allowed a military expression, I might say that the carnage was frightful and blood flowed freely on all sides. The pelvic cavity had to be tamponed with iodoform gauze to check the hemorrhage from innumerable small vessels.

My mistake was in attempting too much.

My next death was from an abscess under the abdominal incision in a case of abdominal hysterectomy. The autopsy showed that the stump was healthy and surrounded by healthy tissue, but that the abdominal cavity was infected higher up, just under the abdominal incision.

My mistake was in allowing a general practitioner to assist me, without knowing anything of his antecedents, and without superintending the disinfection of his hands. I know better now.

My next death was from sepsis, in forty-eight hours after an operation for a large intraligamentous ovarian tumor, performed two days after the operation just mentioned. Whether the *two* general practitioners who assisted, or the nurses, or myself, infected the patient, I cannot tell.

My mistake was imperfect asepsis and the employment of imperfectly qualified assistants.

My next death was from sepsis, thirty-six hours after the enucleation of an ovarian abscess, which burst during enucleation. I washed out the abdominal cavity thoroughly with boiled water, and tamponed the oozing pelvic cavity with a Mikulicz drain.

My mistakes were in washing out the abdominal cavity and thus disseminating the germs, and probably other faults in the technic.

My next death was a sudden one, and took place a week after an exploratory incision for sarcoma of the broad ligament with metastatic nodules in the uterus. Intestines were adherent over it. Tumor not disturbed. A malignant tumor had been removed from the breast two years before. Patient had complained of her heart several times during the week following the operation. There were undoubtedly metastatic deposits about the heart that had not given any evidences to ordinary auscultation. I found such deposits in a similar case which I examined post-mortem for another operator.

My mistake was in not having her heart examined by an expert before the operation.

A study of these deaths will reveal the following shortcomings:

An imperfect diagnosis led me several times to operate without knowing what I was going to find, and thus, to a certain extent, unprepared for the emergencies that I met with. The only remedy for this in a young man is to read constantly the best native and foreign authorities, the proceedings of the leading special societies, the current writings of those who have had experience, and to associate himself with some one who is doing good work of this kind, to the end that he may learn all that can be taught him, as well as gain considerable experience. In this way he not only becomes familiar with all kinds of intra-abdominal conditions, but he learns to cope with all kinds of complications.

Another cause of trouble lay in not carefully investigating the general condition of the patient. A thorough examination of the heart, lungs and kidneys should be a routine practice. In patients of doubtful vigor, the quality of the blood, the amount of endurance as estimated by the pulse respiration, muscular strength, nervous symptoms, etc., should be determined. Chronic septicemia, malaria, habits, idiosyncrasies, etc., may also have much to do in directing our line of action with regard to the necessity of unusual preparation or the justifiability of performing a radical operation.

The subsequent treatment and nursing with reference to reopening the wound, the care of drainage tube, etc., was not always faultless, and the mistakes were such that other inexperienced men would be liable to make, even at the present day.

Another fault is one which is quite common in small towns where these operations are not frequently performed, viz.: an imperfect system throughout the work which would insure the exclusion of all external sources of infection from assistants or nurses, the proper training of nurses, perfect asepsis in all the details of preparation of the operating room, patient, the transfusion and hypodermic apparatus, reliability in the counting of sponges, etc.

A want of appreciation of the necessity of extreme care in every detail of operating, such as the proper placing of ligatures, checking of hemorrhage, the toilet of the peritoneum, etc., was the cause of some of these early failures. Tapping got me into trouble twice.

The operator should not only be able to avoid these mistakes, but he should be able to select his cases so as not to operate upon hopeless ones,

and thus cut short the patients' lives. He should also keep himself informed upon the latest advances in method and technic, which are constantly improving.

This leads me to remark that to do the best work one must, after a sufficient experience in general practice and general surgery, devote himself to peritoneal surgery as a specialty. One thing has been ostentatiously overlooked by the general surgeon, viz.: that the entrance to peritoneal surgery is best made through gynecology. Not only can a large proportion of the operations be advantageously done through the vagina, but the advances and improvements made in peritoneal surgery are so largely made by gynecologists that a thorough knowledge of gynecological literature, including text-books, periodicals, reports of society transactions, etc., is necessary. No busy man, not a gynecologist, can keep abreast with this, and no one is brought into such familiarity with peritoneal work as he who practices major gynecology. I do not say this as a gynecological bid for peritoneal work, but as a conscientious statement of my firm convictions.

I fear that some of my younger listeners have thought that I did a great deal of bad work, even for a young man; but those who have done much work of this kind will appreciate the situation. There is no work in surgery so trying and difficult to the beginner.

With regard to my personal antisepsis, I will say that when I began the work I either took a bath, or washed and disinfected my hands and arms the evening before each peritoneal operation, repeated the same upon arising the next morning and also just before the operation, besides avoiding contact with sepsis the day before, and I think that I never carried sepsis to the operating table. My assistants usually began their preparation just before the operation.

I now have a special assistant at my operations who understands asepsis and antisepsis, and feel that without such skilled assistance I would still lose occasional patients that are now saved. A better class of trained nurses, working under a more perfect system, is undoubtedly the means of avoiding other deaths.

In those days my mortality was about fifteen per cent., whereas I have now had a run of ninety-nine consecutive peritoneal sections without a death. The experience gained from deaths in my earlier practice has, more than anything else, enabled me to avoid bad results latterly.

Dr. Wm. R. D. Blackwood, of Philadelphia, in a recent article on typhoid fever says: "The mouth, teeth, gums and tongue should be nicely cleansed twice daily, and I like glyco-thymoline for this purpose: it keeps sores and tartar away, and is very comforting to the sufferer."

Pills for a Sphere.—We notice in the last issue of the *British Medical Journal* an article headed "Pills Against Earthquakes." There can be no homœopathy in this. We suppose, however, that they are purgative pills, made expressly to act upon the bowels of the earth.

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By Dr. Warren B. Outten, of Saint Louis.

[CONTINUED FROM THE MARCH ISSUE.]

CHAPTER II.

The Circumstances Leading to the Removal of the Bombastesian Cohort to London.——Another Description of the Members of the Cohort; Particularly, Concerning Their Mental Improvement Under the Leadership of Theodorus, and With Surroundings so Improved and Favorable for Mental Culture and Learning.——The Especial Factors in the Mental Improvement of the Bombastesian Cohort.——A Discussion of the Character of the Great Phillipus Aureolus Theophrastus Paracelsus Bombastes Ab Hohenheim—A Discussion Concerning This Wonderful and Erratic Character; Concluding With His Accomplishments, and the Confusion Incidental to His Historical Character.——Menthos Boule's Opinion.

SUCH was the vigor and deep resolve of Theodorus, that success surely, but slowly, came. Aye, true, Theodorus was not only intense and determined, but thoroughly industrious. He became a strenuous worker, reader, and observer; and gradually traced a character, not only of patience, but of charity. True, e'en it was of such dignity and example as to influence—and influence kindly—all with whom he came in contact. 'Tis thus his followers ever found him a just tho' rigorous taskmaster. He had early discovered that if he would have an intelligent Cohort, constant contact and mental training were necessary; hence he did but commence at an early date to impart what knowledge he possessed, or could give them by his reading. Yea, too, he demanded of and conceded to his Cohort the utmost freedom of thought and converse; and gradually instilled nightly lectures, in which the events of the day and other matters such as might be gleaned from various sources were discussed, and thus impart knowledge. Right rigidly did he insist upon these hours being employed only in mental refreshment and instruction; and that neither frivolity nor gossip should find place. He had early found out that his own personal appearance, regarding age, was somewhat of a check to his influence over his patients. Hence, he soon used as a part of his attire a long, flowing beard, and thus disguised was unrecognizable when encountered away from his business, which we shall learn later was of material assistance in the prosecution of his work. He concluded that the itinerary necessary to bring extended results was but the means, not only of wasting time, but of losing the effect of his work. Hence, he determined to find a fixed abode; and, thus, by perfecting detail in his occupation obtain, perhaps, better results through his labor. Aye, he argued, in the study of location, that none appeared to offer so much as an abode in London, which, according to his thoughts, possessed broader opportunity, greater liberty, and more general but cultivated intelligence, than existed elsewhere to his knowledge. Yea, did it not have more of the sturdy element than any that he knew? Above all, was it not ever a place of stability and protec-

tion? It offered more constant and more rare elements of growth than any other. Besides, was it not a little world in itself? Yea, he knew, too, that a change in location would of necessity involve expense and a change of method. But, with time and patience, he evolved and perfected his plan, and formulated the course he would pursue regarding his Cohort. While his companions were of great and constant assistance, he yet could not use them in the same way as hitherto he had done. But probably more effectively, he might otherwise use them still to assist him in his plan of treatment. He would now use them in divers other ways: to accumulate information regarding patients, when opportunity offered. Thus, he said: "'Tis ease's course, to learn where leaning wells. Aye, a barbarian will a barbarian ever be, who would with barbarians ever dwell. Cæsar in a desert would never have been Cæsar. 'Twas Rome made Cæsar, and not Cæsar Rome. Rich regions bring but rich results; and London is the world's learned spot. And he that could not learn in London must be a dullard, indeed."

So, after the fifth year of his labors did he honor Holborn by settling in it, and began his labors on a higher and grander scale. Nay, it doth wonder breed to see what a change was wrought in these men. I do remember that they were a motley crowd when first we did meet. Aye, anywhere they would court amazed inspection and amused laughter. Yea, now have I but to look back to attest surely the rare virtues of better circumstance and education. Nay, as the Latin hath it: "Education is the poor man's haven." And, indeed, it was not only a haven, but e'en as heaven, almost to these poor men. Aye, forsooth, a more earnest, eager, and hard-working group than these were, one does not meet. It did but seem as if the spirit and the will of Theodorus filled each and every one of them. For their eagerness to learn did make it sweet pleasure to teach them. Now, anon, when London was reached, with its wealth of learning, yea, rapid strides were made by each and all. Theodorus insisted that days should be set apart for each that he might attend school, hear lectures, and his mind improve. At all times he held his Cohort to strict account, and ever insisted that they should impart their doings; and, by detail, recount what they had heard or seen; nay, would e'en direct at times whither they should go, and, by written report, account for what had been read, lectured on, or otherwise presented. Thus it was that improvement came, indeed, to all. The effect of changed conditions, other surroundings, and broader knowledge, were pleasantly and markedly manifest in every member of this Bombastesian Cohort. But, none developed more rapidly, or more generously, than Theo Celsus. In Para Blar, while slower in response, the improvement was none the less gracious and marked. The mental growth of Heine Lanius was as rapid as that of any, although less constant; and, had this mode of education been available earlier, it would have yielded greater promise and result. While Tes Aure was ever a marked example of the good effects of a useful and broader life.

Theo Celsus was of about the same age as Theodorus. He was of medium height, with light-blue eyes, and light, flaxen hair; he had a strong, straight nose, whose length was well proportioned to his forehead; its point was well rounded; its flanks delicately shortened, and the entire organ was well set between his eyes. His mouth was of such a size as to

seem ever in harmony with the face. His lips advanced equally, thus indicating a strong and loyal mouth. Smiles rippled around its curves like pebble-disturbed water. He had a round, high, yet gently receding forehead. His eyes were large, brilliant, and beaming. His eyelids, elastic and flexible, played tuneful with his mouth; they rippled, too. A strong chin surmounted his muscular neck, firmly set upon his square-shouldered body. He was quick in thought, and quick in utterance and in motion, and yet withal, not nervous; for nature seemed to act perfectly and unimpeded in response to his healthy brain and nerves. His voice was ever mellow, full and resonant; it never shocked, but produced pleased expectancy; for it was so agreeable as to make one always wish to hear more of it. Theo Celsus lived in health and happiness, and thus abode in the land of promise. Aye, he did but seem to be truly glad that he was living; for he had enough and desired no more. Nay, if the cheerful were wise, he could rightly lay claim to wisdom; for his cheerfulness spread o'er his companions like the genial warmth of the sun; and, if anger dwells only in the bosom of fools, he surely was rarely a fool. His joy was like perfume, whose fragrance died slowly, and left but kind and sweet remembrance. He loved and studied nature. He could see laughter in the oyster; love in the snail. Women quickly and unconsciously liked him. Babes would gurgle, and children smile upon him. Even a dog's eyes would glisten and his tail wag with regard and respect when Theo Celsus came. Birds would flutter and twitter, as though influenced. With his improved condition came a kindly, joyous, improved spirit. His nature and his love could not be hid; it appealed to life, and all life seemed to give a glad response. He became an apt, eager, and enthusiastic student. The intellectual world was full to his receptive mind. Easily and readily he found its pleasant founts, and never brooded o'er its piteous mires. For, he said, he had learned that every man has his lot and the wide world before him, and that man could make this lot a graveyard, or to blossom like the rose. And that any man who would only think of death, was not truly fit for life; for joy's flowers were for the living, and charged the air with fragrance, and pledged fruit for sweet repetition.

Para Blar was of tall stature, spare build, and was about four years older than Theo Celsus. He was loose-jointed, and had a head of more than ordinary size, which was covered with a thick crop of hair; and each and every individual hair aspired to prominence and erection. Comb and brush might make it more erect, but would miserably fail to either smooth or part it. He had a forehead shapely, though somewhat rugged in outline; with markedly deep-sunken eyes, whose balls were sharp and penetrating; prominent cheek bones; a large, long nose; and moderately square, firm-looking jaws. He wore a thick moustache, and sharp-pointed, closely-cropped beard. He had a voice deep and sonorous, of a monotonous, yet soothing harmony; flexible, but still rhythmical. Its sound was like the hum of the humble bee—always melodious, lazily-soothing, yet suggestive. Para Blar was an uncertain eater, but a good sleeper. He had averred that, as far back as he could remember, his life had been as an antithesis. When feeling best, it was a mere matter of time when he would do something to make himself feel badly. Thus, when ease and comfort came, and he had not an ache or pain, almost unconscious that he lived,

fool-like, he would forthwith smoke and revel; and not content with sufficiency, would smoke and revel to excess, whereupon joy would end in misery. Thus it was, if not with one thing, then with another. He likened himself unto the character of Intemperance; and, indeed, he might have made a worse comparison. He thought that he much needed a nurse. Perhaps, he would thrive better, after all, if that nurse were a wet-nurse; for then, mayhap, the sameness of nourishment might not react, as variety did, upon him; for "variety" had not been his "spice of life," but rather its wormwood. Para Blar became a good thinker, and an earnest student; and although he could not learn fast, he learned thoroughly and well.

Para Blar.

His slowness was impressive; his earnestness ever created respect, and his wisdom was homely, forceful, and well-timed.

Heine Lanius was a veritable contradiction. He would invoke the aid of high heaven if but a flea bit him; yet, were anger but aroused, he would fight a lion. He was of medium height, with a well-shaped head, covered with light, thin hair, whose thickness seemed insufficient to hide his scalp. His eyes were small, light-blue in color, exposing, habitually, much whiteness of the eyeball. The upper part of his face was large; the nose pointed, yet not long. His lower jaw was small, peaked, and weak; as though contracted in its proportions. His chin was rendered more

pointed by a carefully-cultivated, though scant, growth of thin whiskers. His mouth was small, and adorned by a sickly, bristly-looking moustache. His face had a brisk look; for at all times it appeared to be asking a question. He said that he knew he was a good deal like "haste," in that he had always courted "error;" that, in his eagerness, he not only tripped up his heels, but his brain as well; and, as for his tongue, he was morally certain that, if he had not so constantly tied and tripped it in its wild career, it would oft have beeen sufficient, in its irregularity of motion, to cut his own throat. That, while the German had said that nothing should be done in a hurry excepting catching fleas, he felt sure that his very haste would always thwart him in the attempted catch. He was musical and loved sentiment; and, like a nerve, received and responded with lightning-like rapidity. His voice was high, sharp, and rapid, and excited nervousness in those to whom he spoke. He would go into ecstasy over what he had read; and then, in a minute, would weep as readily. He had rapid, but not constant, memory; was always eager, yet easily tired. Variety and change to him were life.

Tes Aure was of stocky build and bilious temperament. He had a round head and a round face, a dark complexion, and eyes not large, but still pleasant in expression. They were dark in color, as was his hair. A broad, strong chin; a mouth pleasantly formed, with a short-cropped beard and moustache surrounding it. His face wore an expression of kindness; and he carried himself with precision and force. His voice was low, with precise utterance, whose very precision monotonously robbed it of its natural music. His was a tense, thorough, and stubborn mind. Originally a skeptic, he, when belief came, stubbornly maintained it. He thought better than he could express. His greatest weakness came from his ideas of fatality. "What is to be, must be," had ever been with him a tenet which had detracted from his character what is ordinarily regarded as an unusually potent element, only to replace it with lax exertion, if not almost supineness. He had said that "while he had never fled from fortune, fortune would never fly to him; that it might be true that 'fortune was blind,' but that she certainly saw enough constantly to have prevented her from seeing him." He was too much like a bad farmer, who has given to earth what the earth did not return. He was, however, a good student, always on hand, but never eager; devoted to duty; and what he learned, he learned well.

Blong Bom was a tall man, and well nourished, who carried himself erect, and walked on his heels. He was quick in motion; his every effort was adorned with flourishes. He was of light complexion; had a shapely face, and a small head, upon which was pasted light hair, correct in contour. His eyes were small, and his glance furtive. He had a tilted nose, an overhanging upper lip, and a mouth which looked flatulently communicative; with a chin narrow and poorly proportioned. He was very much like gossip: if not a distorted, at least a well-dressed repetition. He was assent and assertion without thought; but, withal, easily influenced, and harmless.

Tius Bu was of medium size; with a shapely, but small head; and this head inclined to baldness. He had dark, but sleepy-looking eyes; rounded forehead; a flabby nose; a large mouth with parted lips; and a flaring beard.

He was a good deal like a reminiscence; for he evinced a world of strength in the past, became weak in the present, and, from all indications, would meet the future enervated. He was a kind-hearted, listless dreamer; easily impressed, but slow in response.

Young Us was a tall and well-built man; with a small head and a large beard. His eyebrows were shaggy; his eyes dark, and somewhat vacant in look. His stocky, firm nose matched a chin, the best of his features. He was more muscular than intellectual; good-natured in the extreme; too honest to be pretentious, too dull to learn, and too ignorant to be communicative. He enjoyed the companionship of his associates, and lent comfort to them by his sturdy and burly presence; and yet he was as credulous as any child.

Vegge Go was of medium height; with light hair, light-blue eyes, and wedge-shaped head; pointed, tilted nose; sad, serious-looking mouth, and weak jaw. He kept his face clean shaven, and, withal, was not ill-looking, but, rather, aroused attention. He was very much like a drum: full of sound and wind. Still, at times, his spontaneity gave vent to passing good sense. But his wit soon lost its point, and boomed into nonsense. Unbeat, he was at his best; and seemed to be one of those who, when strong thought is indulged in, suffer rapid exhaustion of the brain. Thus there occurred to him aborted ideas, very much as if he had tripped and floored his brain, and stunned it. He was easily impressed, yet perfectly harmless.

Nay, I truly trust that this story may not prove a wearisome thing; but such were the characters of this Bombastesian Cohort. Theodorus seemed ever ready to meet expense; true, foible was not his need: for he was ever temperate, and his wants did but crave satisfaction in science's and wisdom's stores. This was his very life, his every hope, his unceasing joy, and the ruling force of his being. Nay, 'twas strange that the mother of Theodorus seemed ever under a spell, and, in very freakishness, did bide wherever Theodorus was. She was a good woman and true; ever faithful to her son. God shrive her soul; for she died at the end of our first year in London. This much is said. And now we come to the purpose and intent.

Theodorus did demand that system should ever mark this Cohort's course; that each and every one should appear in flowing robes when he would attend their evening converse. Yea, decorum and rule must govern; but learn they must, and by industry; as this was but the honest way to success.

At times Theodorus would select the subject for discussion; which was usually announced some time in advance; and this subject the Cohort was instructed to give study, and to bend their minds in well-considered thought. 'Twas by the insistance of Theodorus that, inasmuch as he was by ancestral ties a kinsman of Paracelsus, they would discuss this marvelous man at one of their evening meetings; and thus did he and his Cohort stress and argue concerning this strange and marked character. Here followeth this discussion:

THEODORUS.—I find from Johan Huser the story of my ancestor, the great Phillipus Aureolus Theophrastus Paracelsus Bombastes Ab Hohenheim, called by his enemies "Mountebank" and "Vagabond;" called

by his lovers and admirers, the unmatched and most stoundful physician of his time. Born near Einsiedelen, in the Canton Schuyz, in 1491; his father a doctor, his mother the superintendent of a hospital. Aye, he soon became a wayward, yet learned stripling, who marched to the tuneful tenor of his own thoughts. Nay, from the very start of his life's work did he joist and bout with kind Mother Nature. He conned not his knowledge from books; but footed over country to country, studying plants, leaves, trees, rocks, earth, heaven, and man. He was not the soul to sit still and pour over musty tomes of ancient lore; but drew his assess of knowledge through his own seeing eyes and active brain. 'Tis true, he was the first real campaigning questionist in medicine; for he did but study mainly from the great book of nature, from which all strong thinking men draw their greatest store of knowledge. Nay, did he not always stress and argue that the passions, natures, and diseases of different people are different in each country in which they live; and that the physician should go among different nations of the world if he would become masterful in his art. Aye, strong and hard did he argue that books give only bookish knowledge; that your own eyes and experience, in studying nature, unfold a broader, better, and more truthful view of life; and that life, in all existence, is, after all, but the glow of its Creator. Life in man is the one and only adequate disclosure of the indescribable essence of Nature's Maker. I warrant thee, that this man Paracelsus was a man who, from start to finish, and all the time, thought for himself. No one could stuff ideas into his sconce, like pap into a babe's mouth; for he himself made ideas; and the past did not meet his present. He lived only to study nature—life. Yea, right firmly did he hold that it was of far more point and sense to know the heavens, earth, the virtues of plants and minerals, than to waste one's time in conning croaking Greek, or buzz in bubbling Latin. Woe, betide —yea, Marantha! for his bold contempt of bookish knowledge, was he not called a loutish fool and vagabond? Zounds! but he was a wondrous, splendid vagabond. Medicine's grand "tramp" and genius! The father of a system of medicine, the father of nomad chemistry! "Whence," quoth he, "have I all my secrets? Out of what writers and from what authorities? Ask, rather, where the beasts have learned their craft? If nature can so well instruct irrational animals, how much more can she not do for man?" Oh, yes! he was a learned paladin, who spurned all unproved evidence, and repudiated the bigoted medicine of his day. But he was a consistent vagabond; and, not believing on books, threw them to the fitful flames, and for years, while making books himself, he looked not between the lids of any. Hard and forcefully held he that e'en his shoe-buckle was more learned than Galen or Avicenna. Oh! he was a wonderful land-loper, wanderer, Bohemian, "tramp," and vagabond, who gave to medicine many of its mineral remedies, and taught how to make others. Admirable vagrant that he was, did not he first make, name, and use laudanum to soothe the pained and wretched? Yea! this vagabond of giant intellect could cure disease when all others had failed. The bigoted pigmies of medicine assailed him from all sides. His rare and wondrous success did but arouse envy and hatred; and as age approached, all loath for strife, he sought for calm elsewhere; so became the illustrious, learned, and splendid martyred "tramp" of medicine.

THEO CELSUS.—But, worthy Theodorus, I have heard that Paracelsus would not study to aid medicine, by haggling the dead.

THEODORUS.—Thou art right, Theo Celsus; for he held that to know the nature of man, and how to deal with it, one should not study anatomy, but all parts of external nature. His was a study of living, not of dead, nature; for, he averred, that when life ceased, nature had but taken away what she had lent man's body, and that the man had ceased to exist when dead; that a study of the dead was, after all, only a study of death. It doubtless might expose results, but could give no idea of the cause or nature of life, nor explain the combats of life with disease. And that the workings within the living body could not be told when life had once departed. Hence, he studied life in every way and act, but would not study the dead;

THEO CELSUS.—'Tis granted, the end of all things is death. And he that died ten seconds ago is as dead as ancient Adam; for death is never more nor less, but sufficient; for he never lived that spake with the dead.

THEODORUS.—Aye, we can be taught much by the study of the dead; though the soul can be studied only in the living. But, anon, we are not making progress.

Paracelsus had a creed of his own, which had breadth and strangeness. He claimed that the human body was like the world—that it entertained within itself every part of visible nature, even sun, moon and stars, and the poles of heaven. That the human body was the microcosm, or little world; the universe, the microcosm, or big world. That life was an unceasing budding, sprouting or vegetating process, under the sway or control of Archeaus, its indwelling spirit; that nature alone was able and sufficient to cure most diseases, which is true even now; for without nature's aid, none could possibly be cured. But he held that art should interfere only when the internal physician—that is, the sick man himself—was tired or incapable. He held that remedies were antagonists, not to the disease itself, but to the immaterial or spiritual seed of the disease. Yea, he had names for all. His remedies he called "Arcana," and his "Arcana" meant a secret, mysterious force, begot by the interaction of the remedy and the spiritual essence of the disease. He claimed that his "Arcana" possessed properties such as heat, force, and so on; that by a lucky resemblance they became, as it were, like unto certain parts of the body, and then as signs or signatures, indicated the virtues and uses of special natural objects. He used chemic remedies, which he believed held within themselves the spiritual essence from which they were originally derived. His "doctrine of signatures" was vast and bold—too vast to be learned and known; too bold to be wise and faultless. The supposed connection of every part of the little world of man, with a corresponding part of the great world of nature, however silly may it have seemed, carried with it a quantum of virtue; for in its trail came many rare remedies, which we now call "specifics."

THEO CELSUS.—It doth seem to me that the remedies of Paracelsus were as "like to like." He used worlds to cure worlds. Even now the big world and the little world have much need for each other; for 'tis said, "this world is nothing, except it tend to another." But, gods! 'tis a monstrous man that can look the world in the face and feel the world's pulse, and give little worlds to cure the big world's pangs!

THEODORUS.—Yes, it may be pitiful to say, but 'tis notwithstanding

true, that thy tongue is very much like the world; for 'tis said, "the world wags on with three things: doing, undoing, and pretending." But, patience! Paracelsus, like all great men, would fain know too much. He tried to unravel the mystery of mysteries; that is, the origin, continuance, and stoppage of life. The beginning, course, and stop of life are from each other as different as God, earth, and heaven. 'Tis plain that if but the beginning were known, it would make the knower maker. This maker, then, could tell the cause of life's continuance, and the necessity for its stoppage. To be maker comes of knowledge; to be made is but the product of a maker; and the made carry not within them either knowledge or preference of their creation. The made are only the offspring of their creator's wisdom and will. So to know the beginning of life is, as it were, to be deity—gods—more than worlds—more than wisdom—more than life; for deity is omnipotence.

Anon, Paracelsus was a contradiction: he aroused not only attention, but passion as well; for at times he was a very witling, a weakling, and forboding as a woman. Again, he was wrong in thought, faulty in observation, and as freakish as a mad-man. Furthermore, no man could compass method better than he; nor had any one higher views or broader scope in medicine. He was of his age the questioner, teacher, and scientific suggestor, and is even still a learned enigma.

THEO CELSUS.—He was, then, much like an unlaid egg—an uncertain thing; or, perhaps, more like a proverb—a rare combine of everything and nothing.

TES AURE.—Yea, he must have been a "nine-days' wonder;" for, if words could have made worlds, 'tis vouchsafed that Paracelsus would have created o'er too many. But, beshrew me! 'tis strange; but, according to Paracelsus, if this little World-Man, the microcosm, has within him the sun, moon and stars, and the poles of heaven, 'twere enough. Aye, but Paracelsus did but save himself; for when he put heaven within a man, it became right; for hell is where heaven is not. I do but marvel—for these are marvel's own—that it would be a strange world and a sorry hell without a devil. Still, with words did Paracelsus make his worlds; yet, even so can I myself make, with an *l*, words into worlds.

THEO CELSUS.—Yea, thou'dst better not take *l* from "lass," for it might picture thee.

TES AURE.—True! but if I should remove it from "calf," it, like thee, would still mean the same.

THEO CELSUS.—Nay, though wrongly spelt, rather take it from "silence," and thus make me the best of wisdom.

THEODORUS.—I prithee keep not up this, as thy cataract of words will contain but a mizzle of sense.

THEO CELSUS.—If "mizzle" means "a shadow," "a shadow" means "nothing." So you need have no dread; for where there is nothing, there is neither temptation nor danger.

VEGGE GO.—Aye, but 'twas a crazy thought of Paracelsus, that the big world and man, the little world, acted the same. Pish! Pooh! By the beard of the Prophet, 'tis giddy, 'tis shallow! Just think of it! the big world drunk; the sun, that king of torches, just staggering, boiling, glowing, and yelling! The moon, the placid moon, gathering up her

skirts and perambulating in uncertain steps; giggling, smirking, and hiccoughing! And, then, to think! each little star chattering in uncontrolled noise, tripping itself up and laughing! Then, indeed, there would be many laughs, as the old, old world did roll uncertain, hiccough, and spew; and the very poles of heaven would look on, sigh, and be sad. Why, this is worse than folly; 'tis idiocy.

THEO CELSUS.—Yea, verily, Vegge Go, thou art done. For thou hast knocked thy brains out with infinity; yea, killed thyself with that which

Theophrastus Paracelsus.

never was, nor ever will be. Thy death was a painless one; for nothing did kill nothing.

THEODORUS.—And now, sirs, here let us end our discussion of this mixed and strange character. It doth, indeed, seem that, as time creeps on apace, in the consideration of any marked historical character, much of mystery prevails, and along with it much that is garbled with the truthful and honest say of almost every one who ventures to discuss such a character as that of Paracelsus. Nay, do we not find, even at this present time, that he is considered by many one of the most pronounced and utter quacks that ever lived. But true it is that, according to the highest

authority, Paracelsus was, indeed, in every sense, a leader and a master in advanced thought. Thus have I gleaned from the best of authority—men of care and patience, integrity and honesty—that their judgment is that the apparent aim, indicated by all the writers, of Paracelsus was constantly towards the promotion of medicine. Aye, even truer doth it still show that his every endeavor was to put before all doctors a grand and worthy ideal of medicine as a profession. For the living part of his character is plainly shown in his writings: that he never took a narrow view, but wrote in the broadest strain, indicating the universality of medicine; that it was not limited to one class of people alone, but suitable for all the people of the world; and thus I quote from him:

"The general relationship which man bears to nature, as a whole, is such that he cannot divorce the life of man from that of the universe. He cannot think of disease other than as a phase of life."

Yea, and in very truth, this is a thought worthy of every professional man's consideration. And common sense must, I say, indicate that men and books must be studied together; and that, even at this period of life, books are studied to the neglect of the proper and deep study of man himself. Nay, let any physician study all the surroundings of man, and his every phase of character, and thus he will find that he but truly interprets the mental element of the case, has less use for physic, and obtains greater cure. For, upon my soul, I do but believe that more than half the life of a physician is made up by rote, more than it is in honest judgment—not only of practice, but of man himself. Aye, then, I say, and repeat again, formula makes the character of the physician, at the present time, more than does the real and true study of the disease; and from what I know, the patient himself not infrequently makes the diagnosis, and the doctors prescribe a formula.

Nay, then, 'twere useless to prolong this talk.

I find that Paracelsus found his last resting-place at Salzburg, where he had died in 1541, after almost endless wandering, which made a varied and teeming history, in which his brain seemed not to give him rest, and in which his combative nature seemed ever to carry him to discussion and combat rest. Now, then, I do even find that the cause of his death was uncertain. This man, who created a world of enemies that were never inactive, that hated Paracelsus with almost fiendish intensity, asserts that he died in a low tavern, in consequence of a drunken debauch of many days' duration; while others state that he was thrown down a stony way by the emissaries, either of the physicians or of the apothecaries, both of whom, during his life, he had continuously, unceasingly, and madly harassed. In support of the supposition that he was thrown down a stony way, surgeons have pointed out, upon the skull of Paracelsus, a flaw or fracture which could only have been produced during life.

And now here we end this; for it is my loyalty to my namesake which thus makes me speak in extenuation of him, as thus I do. Aye, it is said that great men's vices are accounted sacred. Heavens! this cannot be said of Paracelsus; for true it appears, as his history indicates in the plainest of terms, that he was an industrious disturber of the settled ideas of his time. But, heavens be praised! neither time nor prejudice can completely shut out or dim the fame of any true genius; and such, forsooth, must have been this man. Here endeth this homily.

Perchance, Theodorus is right; but, forsooth, it doth seem to me that Paracelsus had o'er too much odium in his character to have much virtue. Yea, he may have been as deep as the sea, yet he was as filthy as a sink-hole. Aye, he was like unto a collation I once heard, which perchance is coarse, but thus it ran: "He is one who stinks and shines and shines and stinks, like rotten fish by moonlight." Aye, his was a crooked character; still it begot a straight gleam. His brain—nay, I should say the outcome of his brain—wracked his times and influenced the present. I doubt not 'tis true, that shocking ideas in shocking characters make shocking enemies. That he was a fallible being is plainly evident; for he was a stewing vexation in his time. Repute is a force in good or evil; and truth, brainful truth, like a diamond, shines in whatsoever company it keeps. Anon, it doth seem to me that when speculation comes in to unravel a character, that fabulous guile creates a jeweled cheat. Still, amidst all thy *pros* and *cons*, Paracelsus stands a prominent mile-stone on the highway of medicine.

[TO BE CONTINUED.]

A Physical Curiosity.—A writer in the London *Lancet*, referring to the remarkable feat of a sword swallower, Delno Fritz, then refers to the following:

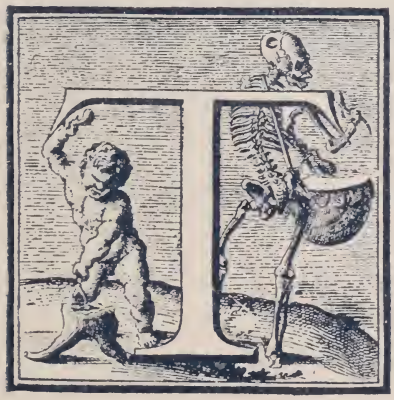
"A second person in whom medical men must be interested is one Young Hermann, who can expand and contract his chest and abdomen at will to really remarkable dimensions. He is able to make a *bona fide* difference of sixteen inches in his chest measurements, and accordingly to snap chains and straps fastened across his thorax by the steadily extending pressure he is able to effect upon them. The alterations which he produces in his abdominal outlines are no less striking. By swallowing air, and then effecting pressure upon it by contractions of the rectus abdominis muscle, he can rapidly pass from the appearance of extreme corpulency to the appearance of horrible emaciation, the skin of the abdomen appearing, in the latter case, to lie against the spinal column. His extraordinary power of swallowing and inhaling air enables him to shift the apex beat of the heart many inches, and otherwise to displace his viscera. The power of swallowing air is not exceedingly rare, but the extent to which Young Hermann possesses it is unexampled in our experience. It is probable that Joseph Clark, the celebrated posture master of the seventeenth century, possessed the secret of this trick in addition to his unwholesome knack of dislocating many of his joints at will. It may be remembered that Clark's favorite joke was to go to a tailor to be measured with his right shoulder, say, much higher than the left, to return to fit the suit on with the protuberance on the other side, and, finally, to call at the shop and reject the clothes indignantly, having this time assumed a central hump. Young Hermann might amuse himself in a similarly ill-natured way if the inclination took him."

Young Hermann is certainly a physical chameleon, and is almost parallel to the India rubber man, who professed to have the singular faculty of swallowing himself and then expectorating his personality into vacuity.

INJURIES FROM "LIVE" ELECTRIC LIGHT AND TROLLEY WIRES.[1]

By J. J. BROWNSON, M. D., of Dubuque, Iowa.

Mr. President and Gentlemen of the Tri-State Medical Society:



THE introduction of electricity as a means of transmitting high power, having come into use so rapidly in recent years, and brought with it the most deadly force known to science, has brought also a comparatively recent class of accidents, occuring from high currents, resulting in a series of injuries comparatively new, the discussion of which cannot fail to be of more than ordinary interest to our profession. The case I wish to present to you as illustrating the effects of receiving a current of the highest known voltage, with recovery, happened on the 4th day of June, 1895.

John Krall, aged thirty years, a wireman in the employ of the Star Electric Light Company of this city, ascended a pole to adjust the wires connected with the transformer.

He proceeded to cut the "live" electric light wire, using an uninsulated wire-cutter held in the right hand.

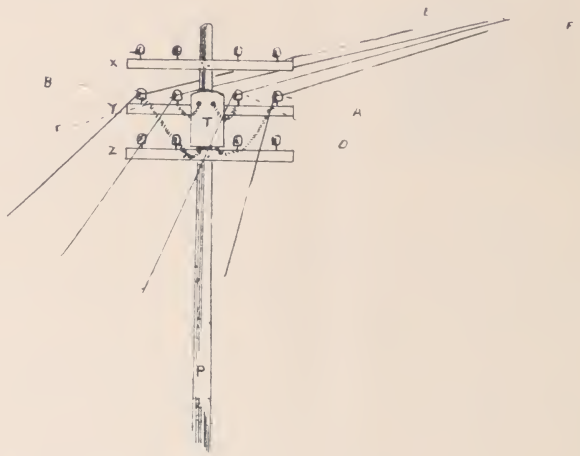
He commenced at the secondary point C D, then the main or primary line at A. As he reached up and severed the remaining primary wire at B, his right thigh came in contact with the secondary wire D, that happened to be crossed with a telephone wire E F, which was grounded in the block below. He thus completed the circuit through the pliers and allowed the full current of 2400 volts to pass through his body. He immediately became unconscious and fell across the wires suspended from the cross-beam.

His assistant telephoned to the engineer at the power house, who threw the switch and stopped the current. The injured man lay upon the wires for about seven minutes, until removed by members of the fire department. When taken down he was found to be unconscious and was promptly removed to the office of the nearest physician, where, under the influence of restoratives, he gradually revived. After his injuries were dressed he was removed to the Mercy Hospital, this city, where I saw him about two hours after the accident.

The patient was very much exhausted and suffered from considerable shock; his pulse was rapid and weak; his right hand and arm were very badly injured, exhibiting a burn of the third degree. The integument on the anterior portion of the hand and fingers which held the pliers was completely charred, exposing the tendons. The thumb of the left hand was compelely carbonized and the index finger badly hurt. There was a

[1] Read before the Tri-State Medical Society of Iowa, Illinois and Missouri, at Dubuque, Iowa, April 5, 1898.

large burned area below the left nipple, which was undoubtedly caused by the transmission of the current through a lead-pencil in a pocket of his vest and immediately over his left breast. There was also a large burn about seven inches long by three and one-half inches wide on the anterior portion of the right thigh. These injuries were very painful and required continuous injections of morphine to alleviate. The right arm was placed at intervals in a carbolized bath, and every attention to antiseptic details fully observed. As the case progressed he seemed to develop considerable nervous phenomena. The pulse and temperature increased and he became delirious at times. He continued in this condition until the second week, when it was plainly seen that gangrene of the right arm to the upper third of the arm had set in and was fast approaching the body. Upon consultation, it was decided necessary to remove the arm close to the shoulder, as the only hope of saving his life. Accordingly, on the 19th day of June



P - POLE.
X Y Z - CROSS ARMS
T - TRANSFORMER
A B - PRIMARY OR MAIN LINES
C D - SECONDARY LINES
E F - TELEPHONE WIRE

the patient was removed to the operating-room and the amputation performed. The operation, which required about fourteen minutes, left him in a collapsed state. He was given hypodermics of strychnia, and external heat applied. He slowly reacted, and by the morning of the 20th was feeling much better; pulse 90, temperatare normal. The case continued to do well until the 2d of July, when the dressings were changed for the first time; the amputation wound was found well united, fresh gauze was applied, and bandages readjusted. In the other wounds the eschars were separating, leaving ulcerated surfaces which were healing by granulation. This mode of treatment was continued from time to time until October 1st, when he was permitted to leave his room. At this date the wounds were all healed except a small portion of the one in the thigh and the one in the thumb.

About November 1st the patient began to increase rapidly in weight and

complained of severe neuralgic pains, especially in the right side and in the thumb. As the granulations of the thumb failed to cicatrize and caused him great annoyance, the offending member was amputated. Nothing unusual from this time on presented itself. The pain and nervous phenomena gradually passed away, and with it the surplus of flesh, so that I am now able to introduce to you Mr. John Krall, the only man in the world who received so strong a current of electricity and lived to narrate the facts.

The literature of this subject is, as yet, meager, and statistics give little data upon which to base conclusions. It seems to be understood, however, that 600 volts is deemed by scientists sufficient to produce instant death, and that the extreme voltage of the death-chair, which is rarely used, is 2000. The case of Mr. Wm. McNamara, a lineman of Albany, New York, who received a shock of 1000 volts while repairing a circuit in the city of Troy, this fearful current passing through him for a period of twelve minutes, is the nearest parallel with which I am acquainted. Mr. McNamara, like Mr. Krall, describes the symptoms of numbness, sickness of the stomach, buzzing of the ears, and an apprehension of being shocked again. In a case mentioned in the New York *Medical Record*, March, 1898, in which the X-ray was used in making a diagnosis of a disease of the knee, this procedure being followed by gangrene and subsequent amputation of the thigh, it was the opinion of several surgeons that the X-ray had some peculiar effect on the tissues and caused death of the parts from within. Might not this element of that unknown fluid have something to do with the production of gangrene in the arm of our patient? Be that as it may, we are now to have as frequent occurrence a class of accidents from these high powers of electricity; that they are accompanied with unconsciousness, sickness at the stomach, buzzing in the ears, and the apprehension of being shocked again, followed by a peculiar neurasthenia of a more or less duration; these symptoms, together with the terrific burns, with tissues charred and carbonized, terminating in gangrene, sloughing wounds, deformities, and oftentimes death.

How best to conduct such cases will require our best efforts and soundest judgment. To accomplish this need, I say that I believe the treatment outlined is, on general principles, to be relied upon—conservative while there is hope, but radical when necessity demands.

Lombroso's Opinion of Zola.—"M. Zola is an epileptoid with prehensile foot, precocious wrinkles, gastric crises, anguish and vertigo after intellectual effort, and hystero-epileptic psychosis, or, at least, a paranoiac psychosis."—*New York Medical Record.*

Epileptoid, prehensile foot, precocious wrinkles, gastric crises, anguish, vertigo, hystero-epileptic or paranoiac psychosis—all of which is a florid way of calling a man a sick monkey.

The Thomas Pharmacal Company, of New York City, are mailing free to physicians a very convenient diet list for diabetic patients.

PTOMAINE AND TOXINE POISONING.[1]

By J. B. STINSON, M. D., of Sherman, Texas.

I AM AWARE that the subject of blood-poisoning is a voluminous one, and that there are various kinds, each being due to its own distinctive germ-cause. To discuss each in detail would require more space and time than can be devoted to a paper suitable for this occasion. Taking this into consideration, I will speak only of ptomaine and toxine poisoning, as these most often confront the physician and surgeon. I know that these have often been discussed in our meetings; and it may be asked: "Why rehash them so often?" Replying, I will say that though their discussion may be likened to a tale thrice told, yet such discussion should lose none of its savor; for if all practitioners are like myself, they need, so to speak, "line upon line" to enable them to cope with such maladies, and which so frequently "bob up" in their pathway.

The term blood-poisoning in this day of advanced thought in all departments, and sepsis and antisepsis teaching, has been caught up by many of the laity, who have imbibed a holy horror of it, and the least wound or scratch they may chance to have is eagerly watched and results feared.

The term, in its broad sense, may be defined to be: "Any deleterious substance which renders it capable of destroying life by whatever avenue it is taken into the system." Blood-poisons may be animal, vegetable, mineral, or chemical. Animal poisons are such as enter the system as individual organisms or bacteria, whose process of nutrition produces death in their host. Although the bacteria themselves are not properly poisons, their toxines are, and are included in the definition.

Ptomaine poisoning is the taking into the system through the digestive apparatus the poisonous products of bacterial decomposition of animal matters known as ptomaines and toxines. These differ much in their characteristics and effects. They may be taken into the system already formed, or they may result from bacterial decomposition in the alimentary canal. As examples of these most often seen are: meat, milk, fish, and shell-fish poisoning. Poisoning by decomposing meat is characterized by severe abdominal pain, vomiting, diarrhœa, thirst, headache, and great muscular weakness. All of these symptoms are not present in each individual case. Milk, being a great absorbent, is responsible for a great deal of blood-poisoning in the shape of typhoid and scarlet fever, diphtheria, cholera, etc. In ice cream and cheese its tyrotoxicon is often credited with a due amount.

Its symptoms in the first named are those of true typhoid fever, and in the latter acute gastro-intestinal irritation. Fish and shell-fish poison-

[1] Read before the North Texas Medical Society.

ing have as symptoms profound nervous depression, without gastro-intestinal irritation and fever, but dilated pupils and impending collapse; and often of the appearance of urticaria or nettle-rash, with its annoying accompaniments. The offending poison in this case has been termed mytilotoxin. If not promptly treated, these three may produce death in a short time.

The indication for treatment is to rid the alimentary canal as soon as possible of all poisonous material. This is best accomplished by stomach lavage and rectal enemata of boiled warm water, and calomel and saline purgation when the stomach will bear them, and morphia hypodermically to relieve pain. Stimulants, and heart and nerve tonics by the stomach, when admissible, or hypodermically when not. The excretory organs must not be lost sight of, and when found not performing their functions should have their appropriate treatment.

We turn now to two others coming within this category, whose poisons are animal, or the result of retained products in the economy. These two are pyemia and septicemia. These two are strictly the results of animal poisons, and more often than otherwise are auto-produced; that is, generated within the economy. They are so intimately associated that the compound term septico-pyemia would seem a more fitting name for the two combined, and I have no doubt at some future time they will be so designated, the term representing two conditions of one and the same disease.

Pyemia was formerly understood to mean an infection by pus and caused by the presence of pus elements in the blood. Microscopic investigation has now disproven this theory. "It is a condition that gives rise to fever, accompanied by severe visceral congestions, and inflammations, or by certain local lesions, which are chiefly venous; thromboses or embolic abscesses in the viscera; acute suppurations of the serous membranes and joints; multiple abscesses in the connective tissues, and eruptions upon the skin." In most instances, though not always, it follows a wound, and that, too, often of a trivial character. I have seen a number of cases of lymphangitis follow a suppurating scratch on a finger, resulting in an inflammation and a consequent abscess in the epitrochlean gland near the elbow. I have seen a like result follow a slight cut on the finger of a woman attending to culinary duties, the wound being left open to receive infection from dish-water and other sources. As a result of an herpes-zoster on one side of the neck and face, I have seen a crop of furuncles ensue and a consequent abscess of one lung in the same person.

The symptoms and anatomical characters of pyemia are such as would naturally lead to the belief that pus had entered the circulation; but the finding of thrombi and emboli in pyemic inflammations has disproven that belief. An infection is said to be a morbid process induced by the invasion and growth in the body of pathogenic organisms, and this may be either local or general. The micro-organisms which enter the blood and tissues may settle in certain parts, and thus become foci for suppuration, and there may be many abscesses formed. This condition would indicate true pyemia.

In the most of such cases there is a source of infection in either a suppurating external wound, an osteomyelitis, a gonorrhœa, an empyema, a suppurating gland, or an appendicitis, etc. A suppurating wound or sore produces a necrosis of small vessels in its vicinity, and these break-

ing up in small particles form thrombi which may pass as emboli into larger vessels, and thus be washed on by the blood-current into other portions of the body, where, being unable to proceed further, are arrested in their course and there become points for inflammation and suppuration. We are told that it has been proven that the entrance of pus into the blood does not necessarily produce pyemia.

A non-infected thrombus may be impacted in a distant vessel, producing an area of inflammation, and afterwards disappear by absorption, without producing suppuration. I have seen this as a result of a varicosed vein. Pyemic abscesses are more properly termed embolic or metastatic abscesses. They may form in any part of the body, but are, perhaps, more frequently seen in the lymphatics, skin, lungs, and liver, than elsewhere.

Septicemia is defined to be a disease due to the entrance into the blood of the products of putrefaction. "When putrefaction occurs in a wound, there is an active development of bacteria, and this is accompanied by a virus which, gaining entrance into the blood, produces symptoms of blood-poisoning of a severity proportionate to the amount and virulence of the dose." Osler says "that formerly, in a surgical sense, the term septicemia was used to designate the invasion of the blood and tissues of the body by the micro-organisms of suppuration; but, in a medical sense, the term may be applied to any condition in which, with or without a local site of infection, there is a microbic invasion of the blood and tissues, but in which there are no foci of suppuration." This seems to constitute the main difference between the two diseases, pyemia and septicemia. Severe cases of septicemia are characterized by high temperature, rigors, sweating, vomiting and diarrhœa. The latter may be considered to be an effort of nature to rid herself of the poison, and therefore salutary.

In favorable cases improvement is evidenced by fall of temperature, less sweating and rigors, and a cessation of diarrhœa. The length of the attack is proportioned to the continued presence of the poison. The prognosis in severe cases of both pyemia and septicemia is often unfavorable. In many cases of the former, treatment is unavailing, hence prophylaxis is all-important. As preventive measures, antiseptic treatment in its minutest detail, and the all-important cleanliness, should be observed. Open wounds or sores should be made scrupulously clean and thorough drainage secured.

These measures must be combined with careful nursing, judicious feeding, and the observance of true hygienic precautions. In septicemia the septic poison requires for its production the presence and development of bacteria, and they need for their life and multiplication a lowered vitality or a damaged condition of the tissues. The preventive treatment in this is the same as in pyemia. In either case, where pus forms or accumulates, the free use of the knife, followed by thorough cleansing with antiseptics, should be the rule. In the puerperium a similar regard to the purity of the genital tract affords the best security to life and health. In all the poisons mentioned a due regard to husbanding the patient's strength should be one of the constant aims of the physician.

THE PUSTULAR SYPHILIDE.

By A. H. OHMANN-DUMESNIL, of Saint Louis.

THERE exist no eruptions which are more interesting to the physician than the syphilides. They are kaleidoscopic in character, and each case has points in connection with it which cannot but awaken a lively interest in the lesions, their form, color, distribution and variations, which to the student are a never-failing source of study and of renewed interest. It is not only the totality of the eruption which fixes his attention; but the details of the various component parts which go to make it up also invite to further study. Another point which the limitations of printed descriptions always force upon us is the study of the various changes through which an eruption passes, both in the treated and the untreated state. This, of course, can only be accomplished by observing the living subject, which is, after all, the only method of studying and mastering the intricate subject of syphilitic eruptions. But, in default of this, a written description accompanied by illustrations may prove of considerable service. Among the syphilides which possess some considerable interest is the pustular. It is interesting from various points of view. It is usually that form which first awakens the solicitude of the patient, where the preceding symptoms have passed by unnoticed or uncared for, under the impression that they would disappear spontaneously and that this disappearance would herald the cure of the trouble, whatever it might be. Pus, however, always creates alarm, whether it be a minute quantity in a skin lesion or a large amount from an abscess; and, upon its appearance, it usually acts as an incentive to seek advice. If the patient has had suspicious intercourse the appearance of a pustular eruption impels that individual to seek medical advice in the fear that the trouble is one of venereal origin. The resemblance of acne pustules to the syphilitic sort will act in one of two ways—either acne will be taken for syphilis, or *vice versa*. In the former case, much needless alarm and fear is engendered; and in the latter, much valuable time is lost. Physicians should, on this account, be very careful how they pronounce themselves upon an eruption of a pustular nature, and should always carefully examine whatever cases of this nature they may be called upon to treat. It is for this reason that the following detailed description will be given of what would appear to many a rather ordinary, if not trivial, eruption of syphilis. As the description progresses it will be seen that the pustular syphilide possesses many interesting features of its own, and is fully as important to the physician as other forms of cutaneous involvement in this disease.

The pustular syphilide occurs, perhaps, more frequently than any other of the syphilides; for several reasons. It is one which follows the

macular or erythematous syphilide, commonly known as syphilitic roseola very frequently. It almost always follows the first miliary papular, or the ordinary papular syphilide; and, again, it is not infrequently the first generalized symptom of syphilis after the appearance of the chancre. In those cases which are energetically treated from their inception, both locally and internally, it will not develop if these cases be marked by macular papular eruptions. But, when we take into consideration what a small percentage of syphilitics apply for treatment at this stage of their disease, on the one hand, and how many receive the proper energetic treatment, and receiving it, fail to carry it out, on the other hand, it can be readily understood how frequent the appearance of the syphilide must necessarily be. And such is actually the case. In the early stage of syphilis this eruption is by far the most frequent in occurrence, and patients resort to all sorts of devices before applying for its treatment. They will pick the pustules to empty their contents, force out the pus by squeezing the lesions 'twixt finger and thumb, only to find that all these efforts are futile and only tend to increase the number of the pustules. The same is generally accomplished by the use of "pimple lotions;" and, finally, the physician is consulted. He may not see a typical eruption, but one in which there has been much irritation, and may conclude, after having seen a few such, and not one example of a typical nature, that the latter is simply an imaginary condition.

The pustule in this eruption is conical, sharply defined against the normal skin, and varies in size from a pin's head to a split pea. The pus is a more or less bright yellow, and is forced through the lesion from the apex to its base. The pustules are not necessarily connected with the glands or hair follicles, differing in this respect from acne vulgaris. The part directly surrounding the pus is of a darkish-red color; and a comparatively narrow and rather dull-looking areola may be found at the base of the pustule. The amount of pus to be found in any lesion depends, to a great extent, upon the length of time which it has existed. The pus itself is somewhat acrid, and is auto-inoculable, reproducing its own kind at the point of infection. The base of the pustule is more or less indurated; the greater the purulent formation, the more marked the induration which is present. It is in this latter form that more or less destruction of the subcutaneous tissue takes place, the corium invariably suffering, and, in consequence of this process, scars always result, showing in after years the various points at which the lesions were located. Those pustules which are not so marked leave only a pigmentation, which disappears in the course of time.

The proportion of cases of the pustular syphilide, in men and in women, cannot be determined with exactness. Of course, men exhibit the eruption in a greater number of cases, but this is due to the fact that a greater number is affected with syphilis. Again, men are more careless of themselves and are not treated so early. There is another factor, which is that women, as a rule, do not exhibit as many cutaneous lesions in this disease as do men, and, consequently, exhibit the particular lesions under consideration more infrequently. In private practice men preponderate in number; and in hospital and clinic practice there are also less women. This is very easy to explain, when the fact is taken into consideration that

it is much easier for one woman to infect a large number of men than the reverse. It is for this reason that such strong efforts have been made to regulate prostitution, and thus cut off so many foci of venereal infection.

No definite rule can be formulated in regard to the time of the appearance of the pustular syphilide. As a matter of fact, it varies greatly within certain limits. It may appear as early as five or six weeks after the appearance of the chancre, or it may make its presence known two, three or four months after that time. I have seen it make its first appearance six months after; but it must be admitted that the patient had received some treatment as soon as the chancre had made its appearance. However, as

FIG. 1. Pustular Syphilide. Discrete Eruption.

a general rule, it shows itself about two months after the primary helkosis shows itself, and its distribution is one which is usually widespread. The trunk, the upper and lower extremities, and the face and head, become the seat of the eruption; although its method of distribution varies somewhat in different instances. The following three cases will best exemplify the manner in which it appears on the body:

The first case which will be mentioned is one typical of the class which is characterized by a discrete eruption. In this form the lesions are not very numerous, and are scattered chiefly over the chest and back, as shown in Figure 1. This case occurred in a middle-aged woman, who did not seem to suffer much from the disease, with the exception of marked

headache. At the time she was observed she complained of osteocopic pains of a rather marked character. As may be seen from an inspection of the picture, the lesions were not numerous, there being more at the upper portion of the back than anywhere else. A few existed upon the neck, and the arms had but a small number of pustules scattered here and there. There were but some four lesions upon the face, and the chest had a still smaller number than the back. The thighs and legs had but a very few scattered pustules, distributed in a manner similar to that on the arms. This is the more ordinary form as found in women. In the picture it will be found that many of the lesions have a central black point, which represents the pus at the apex. In this form of the pustular syphilide, it will be noted that there is no particular grouping of the pustules, a condition which is, however, found in other forms, to which attention will be called later on, when other forms are described. Taken, all in all, this form is a comparatively mild one.

The next form which is deserving of mention is the aggregate pustular

FIG. 2. Pustular Syphilide. Aggregate Eruption.

eruption. In this the pustules are more numerous than in the one just described, but seem to form patches, some portions of the integument being entirely free. A very good example of this variety is shown in Figure 2. A close study of this case will reveal many points of interest, some of which I will point out. Taken altogether, the eruption on the chest presents a circular patch, with scattered pustules on each mamma and in the neighborhood of each shoulder. If the large patch be closely examined, it will be found to consist of a number of pustules arranged in circular forms. The same peculiar disposition of the pustules can be seen in the lower part of the intermammary space, the lesions not being in complete circles, but in two incomplete ones, which form a figure 8 almost. Upon the right arm an arc of a circle is plainly discernible, whilst upon the left there is no definite arrangement. The face was well supplied with pustules, which occurred in ring-like designs upon the forehead. The back was well supplied with lesions, and here the circular arrangement was more marked than upon the chest. This peculiar arrangement is certainly of interest,

and points to a neurotic factor in influencing the appearance in the distribution of syphilitic lesions; but this is a very broad subject, which I intend to elaborate at some future time. I merely mention it in this place as a matter of interest, which has been suggested by the picture. The more study given to these cases, the more this peculiar feature will come out; and many more rings can be made out in the picture shown in Figure 2 than have been mentioned.

A third type of the pustular syphilide is the disseminate form. In this

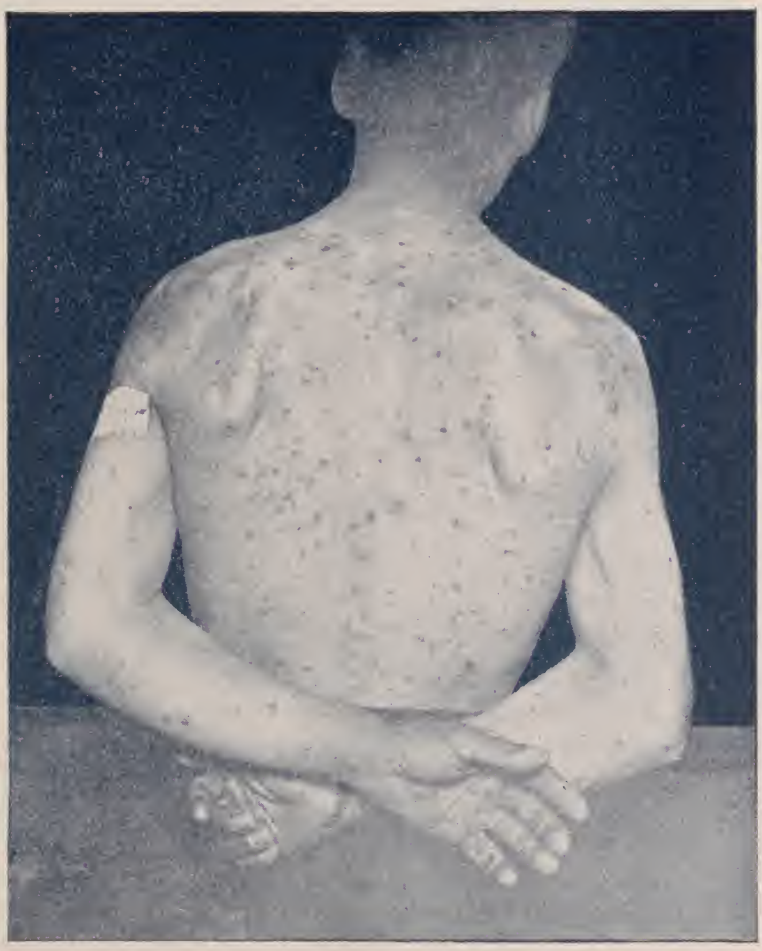


FIG. 3. Pustular Syphilide. Disseminate Eruption.

it is the trunk which is chiefly affected; although the arms and legs have numerous lesions upon them, as well as the face, head, and neck; the palms and soles usually presenting evidence of the syphilitic process. An example of the cases of this type most ordinarily seen is shown in Figure 3. Here it will be noted that the entire back is studded with pustules, from the neck to the waist line. The arms are also implicated, more especially the right. Upon the left arm there is a piece of mercurial plaster attached to protect

a recent vaccination, which had been made on account of an epidemic existing at the time. The lesions on the palm of the left hand are very plain; and, altogether, the entire picture shows the dissemination of the eruption in a very clear manner. The face, chest and thighs, as well as the legs, exhibited as large a proportionate number of pustules as did the back and arms. If the back be looked at closely, it will be found that the pustules are distributed in ring-like designs; and this peculiarity will be found in many cases of the pustular syphilide, being more marked in some than in others, and always existing in greater numbers in women and children than in men. It will also be observed that whilst it may be seen in the papular syphilide, it does not occur in this form as often as it does in the pustular.

It is hardly necessary to point out the difference existing between the eruption which has been described and the large pustular and the varioliform to those who have read the articles on these eruptions in the earlier numbers of this series. The names themselves are sufficiently expressive to give a clear idea of this. One great point of difference lies in the fact that the pustules of the eruption under consideration contain a much smaller quantity of pus, and, as a rule, it is not as destructive in its effects. It is not often that scars follow the pustules; and mixed infections are not often seen. In fact, the severity of the trouble is not great, and it yields quite readily to treatment. Picking or scratching the lesions should always be prohibited, as it is very bad in the way of disseminating the lesions by means of auto-infection. For this reason, patients should be enjoined against these practices and told the reason why they are prohibited.

The treatment, of course, should be both constitutional and local. One combining both is the use of mercurial inunctions; but this is so disagreeable and filthy that but few patients will submit to it, especially women. It is much better to administer mercurials by the mouth, and a very good form is mercauro in ten-drop doses in water after each meal, this being gradually increased up to the point of toleration. It should be kept up for quite some time if any good results are to be hoped for from its use. It may be necessary, for various reasons, to give the patient a mercurial which he can carry about conveniently, and the biniodide of mercury pill in the strength of a quarter-grain, after each meal, will be found to be an eligible form. Another form which is excellent, though objected to sometimes, is the gray powder put up in the following manner:

℞ Hydrargyri cum cretâ ..... ℥ j
Sacchari albi.,
Pulv. aromatic ..... aa ℥ ij
M. Et. ft. caps. No. 60.
Sig.—One capsule after each meal.

In women the protiodide of mercury pill is quite the best. Bichloride may be administered, if some little care be taken. In any case, symptoms of mercurial intoxication must be closely watched, and untoward symptoms guarded against.

But, whatever internal medication is ordered, local treatment must, by no means, be neglected. This will hasten the disappearance of the lesions and contribute, in that manner, to the mental ease and comfort of

the patient in no slight degree. A good application to make is one made of bichloride of mercury, in the following manner:

℞ Hydrarg. bichloridi ..... gr. vj
Ammon. muriat ..... gr. xij
Aquæ destillat ..... ℥ v
Spts. coloniensis ..... ʒ j
M. Sig.—Apply thrice a day.

A better application, although perhaps more disagreeable, is one of diluted white precipitate ointment. Mercurial ointment is also excellent, but the following is not so disagreeable, although oily:

℞ Hydrarg. oleat. ten per cent ..... ʒ ss
Ol. amydal. dulc ..... ℥ iijss
M. Sig.—Apply once a day.

If any of these ointments be employed, the internal medicine must be reduced considerably in quantity, if not entirely suspended; so that, on the whole, it is best to employ the bichloride solution.

METRICAL OBSTETRICS—A LETTER TO MY CLASS.

By R. M. KING, M. D., of Saint Louis.

I.

In every fixed science are firm-rooted convictions,
Upon which to base action beyond all conditions.
To fix rules for sure guidance bereft of contention,
Rules which sweep away all doubt from any direction,
Grant me, therefore, to enjoin in orderly sequence
Th' observance of "Fixed Rules" in regular occurrence,
Evolved and firmly stamped through active cerebration—
☞ THE FACT: Occipital, anterior rotation.

II.

The practical obstetric doctor, beyond a doubt,
Has one impregnable base for action well worked out—
(Worked out by Dame Nature, too, Great Mother of us all,
To which, if he do cling by faith and works, he'll not fall)—
What in the simple mechanism of the L. O. A.
Insistent turns the occiput to the anterior way,
And then in every instance he will readily see
The obstetrician's judgment with fixed rules must agree;
To place the *mentum* in an L. M. A. position
Is surest way t' overcome posterior rotation.

III.

From simple methods, based on skillful observations,
Th' accoucheur wins success in sacral presentations:
Breech, shoulders, vertex, *descend* in regular line of march,
Following in successive rotation 'neath the pubic arch.

IV.

If in labor's beginning the uterus should appear
Oblique to the pelvis, gently correct without fear.
With deftness and shrewd external manipulation,
Change one end of the ovoid *from* transverse presentation.

V.

Knowing well the mechanism of the obstetric art,
The physician's skill is based on SCIENCE WHOLE, not PART;
He upbuilds a worthy fame with courage and with skill,
And many a loving home with *mother joys* will fill.
How could one help more grandly to aid his country's weal,
Or how one's right to honor more vigorously seal,
Than in coming to the rescue of the dear and helpless wife,
Whose "feet take hold on Death" in bringing forth a life?
Oh, doctors! what an honor upon a sin-cursed earth,
To bring to waiting hearts and homes the news of "baby's birth."
We're told that joy pervades angelic ranks in Heaven
When news is flashed from earth that souls have been forgiven.
Not more sublime the joy that beats 'gainst Heaven's high dome
Than that you help to bring to many a humble home.
Then reverence your calling—fill it with hearts sincere;
God's blessing resting on you, what can one have to fear?

HISTORICAL SKETCH.

CELEBRATED ARABIAN PHYSICIANS.

By JAMES MOORES BALL, M. D., of Saint Louis.

AVERROES.

The Christian as well as the Saracenic world has done honor to Averroës, a philosopher and physician, esteemed by many as superior to Aristotle himself. He was born at Corduba, the capital of the Saracen dominions in Spain, in the year 1166, and died in Morocco in 1195, or, as some writers state, in 1206. Thoroughly instructed in Islamitic law, Mohametan theology, Aristotelian philosophy, and the medical science of the Arabian schools, Averroës became famous for extraordinary erudition, and was called to the court of the Caliph, Jacob Al-Mansor, King of Mauritania. He appointed Averroës supreme magistrate and priest of Morocco and all Mauritania.

The rise of Averroës had been rapid, and excited the envy of his rivals in Corduba. A charge of heresy, signed by one hundred witnesses and accompanied by evidence secured by those who had attended his lectures, was sustained, and the Caliph punished Averroës for teaching those things

which were contrary to the Mohametan religion. His goods were confiscated and he was obliged to reside among the Jews in the outskirts of the city. It is stated that he became an object of general persecution. From this unpleasant situation he managed to escape, and, after many vicissitudes extending over a long period, he was restored by royal mandate to all his former honors.

Averroës was a free-thinker and has been called "the Mohammedan Spinoza." As regards his medical knowledge, Moir says: "As far as regards medicine, it is evident that, if he loved Galen much, he loved Aristotle more; and wherever their doctrines are discordant, he shews

Averroës.

cause why we should adhere to the latter. At first, like him, he regarded the heart as the center of the vascular system, and the source of sensations; but latterly he came, like Plato, to divide these functions between the heart, the liver, and the brain; making the first the origin of the arteries; the second the source of the veins, and the nutrition conveyed through them; and the last the seat of sensation."

"His principal work, entitled *Koullyath*, or the *Colliget*, and dedicated to Abdelech, the Miramamolin of Morocco, proceeds on the idea of combining the dialectics of Greece with medical science; and he sets out by warning his readers that they may not be able to follow him in his

reasonings, or appreciate their truth, without an acquaintance with logic. Indeed, it is evident that Averroës attended to medicine merely as a favorite branch of general study, and that his mind was often destined to occupations widely different from the calm pursuits of the physician. His *Colliget* contains a digest of the whole science of medicine, and is divided into seven books. We would look in vain, however, through its pages for anything new regarding practice; but although we are prepared to find much more of the philosopher than the physician, to Averroës must be conceded the merit of luminous and systematic arrangement—a rare quality in medical writings. His pathology differed little from that of Avicenna, as he explained the symptoms of each particular disease according to the inherent forces of the parts affected. He endeavored to bring into disrepute the doctrine of the degrees of medicine, which, introduced by Alkhendi, had maintained its popularity and ascendency over every other theory, with almost all his medical successors, as we have already had occasion to remark; and very pertinently asks, 'On what grounds were geometrical proportions admitted in preference to arithmetical ones?' He has given some admirable remarks on the application of general principles to particular cases; and reminds the physician that not only are therapeutic laws modified by age, climate, and constitution, but that experience and judgment should always be allowed to supersede these, when they apparently stand in opposition. Averroës is the first author who says that small-pox is a disease to which the human constitution is only once subject."[1]

The portrait of Averroës presented herewith is from a lithograph of the painting by Raphael, now in the Vatican. What authority there may have been for it, I am unable to state.

Guaiaquin is a new chemical compound possessing the characteristic properties of both guaiacol and quinine. It is a "guaiacolized" quinine, and is prepared by interaction of guaiacol sulphonic acid and alkaloid quinine; the guaiacol sulphonic acid being prepared by treating pure crystalline guaiacol with concentrated sulphuric acid. It contains 61.36 per cent. of alkaloid quinine, combined with 38.64 per cent. of guaiacol sulphonic acid; the latter being equivalent to 23.48 per cent. of pure guaiacol.

Chemical Composition.

Guaiaquin is an acid salt possessing the formula $C_6H_4\,O_2\,CH_3\,HSO_3\,C_{20}H_{24}\,N_2\,O_2$, and exists in the form of a yellowish crystalline powder, very soluble in water, alcohol and dilute acids, and of a bitter taste. It is free from both the odor and caustic taste and effects of guaiacol.

By the union of guaiacol and quinine a product has been formed which unites the physiological action of quinine with the powerful germicidal and antiseptic effects of guaiacol, and in guaiaquin a remedy is introduced which has already been found of great value as an intestinal disinfectant, as a remedy for malaria, and in the treatment of anæmia and cachexiæ generally.

Properties of Guaiaquin.

[1] Moir: Outlines of the Ancient History of Medicine. London, 1831.

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BALL, JAMES MOORES, OPHTHALMOLOGY.
BLACKMER, R. C., C. M., MEDICAL JURISPRUDENCE.
CALE, G. W., F. R. M. S., SURGERY.
CERNA, DAVID, Galveston, Tex., MEDICAL HISTORY.
COULTER, J. HOMER, Chicago, RHINOLOGY.
HEFLEBOWER, R. C., Cincinnati, OTOLOGY.
HILL, ROLAND, PEDIATRICS.
JENKINS, J. F. T., C. M., M. D., Los Angeles, CLIMATOLOGY.
KELLY, WEBB J., Galion, Ohio, RAILWAY SURGERY.
LAFORCE, W. B., Ottumwa, Iowa, PATHOLOGY.
MINGES, GEORGE, Dubuque, BACTERIOLOGY.
OHMANN-DUMESNIL, A. H., DERMATOLOGY.
PAQUIN, PAUL, THORACIC DISEASES.
PHILLIPS, G. M., GENITO-URINARY.
ROBINSON, F. BYRON, Chicago, GYNECOLOGY.
THOMPSON, G. H., THERAPEUTICS.
VOLDENG, M. N., Des Moines, NEUROLOGY.

OVERCROWDING OF THE MEDICAL PROFESSION.

It is safe to assume that if we can depend upon assertions as made, that different regions of the educational do not agree as regards an overcrowding of the profession. Thus we quote from the *London Lancet* the following:

"Is it safe to assume that at length the somewhat wild rush by young men into the medical profession is to be moderated? We, ourselves, do not mean to be rash in making this assumption. Meantime we take the facts for what they are worth, as recorded in the *Medical Students' Register*, just issued. In the year 1897 the medical students registered were: In England, 828; in Scotland, 504; and in Ireland, 210. There was a decrease as compared with 1896 of 199. The numbers in 1896 again were less than those of 1895 by 97. We must go back twenty-one years, to 1876, for so low a registration number as that recorded last year—namely, 1479. The numbers have been several times over 2000, as in 1879, 1880, 1881, 1889, and in 1891, when they reached the appalling number of 2405. Since 1865, the commencement of students' registration, 50.15 per cent. of the total number of registrations have been in England, 30.5 in Scotland, and 19.5 in Ireland. The diminution last year was proportionately greater in Ireland than in Scotland or in England. We cannot affect to regret the signs of arrest in this rush into the profession. Medicine is not improved by crowds competing for a livelihood."

This is, indeed, gratifying, so far as Great Britain is concerned; but we find the opposite condition to this in France. Thus Dr. Hameau, presi-

dent of the Medical Society of La Grande, states that the number of medical men practicing in France has remained at the same figure for the last fifty years, while the population has slightly increased. He states that in 1896 there was, for the whole of France, only one doctor to every 2564 inhabitants; hence, he draws the conclusion that there is no overcrowding of the profession. Prof. Bronardel, dean of the medical faculty of Paris, does not share this, and is of the opinion that in a few years the increase will be three-fold, and that it is a matter of only a short time that the struggle for life among medical men in France will be of the severest possible kind. It is evident to all who have studied the course of medical teaching in this country that there is a never-ceasing rush into the profession, and many portions of it are now overcrowded. Year by year seems only to add to a greater rush into the medical profession. It has been asserted, probably not without truth, that it is now easier to become a doctor in this country than it is to become a good mechanic.

EXPELLED FROM THE ACADEMY.

Dr. Ozias Paquin, the discoverer of a new cure for inebriety, which is advertised in the daily press, has been expelled from the St. Louis Academy of Medical and Surgical Sciences. When the doctor became a member of the Academy, he was properly endorsed, and for several months his conduct was all that is expected of those who adhere to the rules of the American Medical Association. We regret that he has chosen to walk in other paths. Such action on the part of the Academy shows that there are still some men in the medical profession who believe in living up to the rules which all regular medical societies profess but few observe.

THE COMING MEETING OF THE STATE SOCIETY.

The excellent program of this society is printed elsewhere in this issue of the JOURNAL. We wish to call attention to the large number of papers contributed by gentlemen living outside of St. Louis and Kansas City. For the first time in many years the country doctors are properly represented. For the first time in many years the medical politicians, college claquers, and sanitarium boomers are not in evidence. The men who are always trying to instruct their dear country cousins are absent. The cheap-John doctors and the abusers of medical charity in St. Louis have been almost entirely eliminated. The St. Louis Medical College and the Missouri Medical College—two institutions which were last year condemned by local medical societies on account of the abuse of medical charity at their clinics and dispensaries—are scarcely represented on the program. That the coming meeting will be a success, there is no doubt. If the "ethical quacks" can be kept from the floor of the society, a great good for decent medicine will be accomplished.

THE DUBUQUE MEETING.

One of the best meetings ever held by the Tri-State Medical Society of Iowa, Illinois and Missouri was that which recently met in Dubuque, Iowa. There was an attendance of one hundred and fifty. The papers

were of exceptional value and every hour was taken up with scientific work.

The following officers were elected for the ensuing year: President, Dr. C. E. Ruth, Keokuk; First Vice-President, Dr. J. C. Murphy, St. Louis; Second Vice-President, Dr. W. H. Martin, Chicago; Secretary, Dr. J. W. Fowler, Dubuque; Treasurer, Dr. D. S. Fairchild, Clinton, Io. The next meeting will be held at Quincy, Ill.

THE "BIRTH OF MAN-KINDE."

The editor has secured a copy of this famous work, the first book ever published in the English language upon the subject of obstetrics. It is dated 1634 and is the latest and consequently least valuable edition of this celebrated book. Copies of any of the editions are very scarce. The volume in question contains a highly ornamental title-page, the "byrthe fygures," and two hundred and four pages of text, printed in old English black letter. If any of our readers know the whereabouts of copies of earlier editions, we would like to hear from them.

MISSOURI STATE MEDICAL ASSOCIATION.

The Medical Association of Missouri (State Medical Society) will meet at Excelsior Springs, May 24, 25 and 26, 1898, instead of the previous week, as heretofore announced, the change being necessary to secure proper accommodations. The Committee on Scientific Communications (Drs. Emory Lanphear, of St. Louis; C. H. Wallace, of St. Joseph, and Joseph Sharp, of Kansas City) announces the following papers, which are given in the order of their reception. No author will be put on the permanent programme without announcement of the title of his paper:

PRELIMINARY PROGRAMME.

President's Address.—Prof. Jacob Geiger, M. D., St. Joseph.

1. Pelvic Abscess.—Prof. O. Beverley Campbell, M. D., St. Joseph.
2. Diagnosis in Infantile Diseases.—O. P. Kernodle, M. D., Sedalia.
3. Delays in Surgery.—W. B. Sisson, M. D., Kahoka.
4. Value of the Use of Diphtheritic Antitoxin in the Treatment of Pseudo-Membranous Croup.—L. I. Matthews, M. D., Joplin.
5. Hypnotic Criminality.—Joseph Taintor, M. D., Warrenton.
6. Enuresis of Childhood as It Frequently Extends, in Its Results, to and Even Later than Puberty.—Prof. J. M. Richmond, M. D., St. Joseph.
7. Report of a Case of Cholecystotomy.—Francis Reder, M. D., St. Louis.
8. Progress Made in the Treatment of Conditions Resulting From Microbic Infection.—J. T. Marsh, M. D., Liberty.
9. Some Remarks on a Recent Epidemic of Typhoid Fever.—H. H. Vinke, M. D., St. Charles.
10. Venesection in the Treatment of Disease.—P. S. Fulkerson, M. D., Lexington.
11. Broncho-Pneumonia.—J. D. Brummall, M. D., Salisbury.
12. Naso-Pharyngeal Catarrh and Its Treatment by the General Practitioner.—S. S. Davis, M. D., Fulton.

13. State Medicine.—Prof. J. M. Allen, M. D., Liberty.

14. Three Cases of Hysterical Vomiting.—Prof. Jerome K. Banduy, M. D., St. Louis.

15. Osteomyelitis.—Prof. T. E. Potter, M. D., St. Joseph.

16. Occlusion of the Posterior Nares (Bony)—Two Cases.—J. Rule Fritts, M. D., Mexico.

17. Personal Experience in the Treatment of Uterine Fibroids.—Prof. Walter B. Dorsett, M. D., St. Louis.

18. A Case of Extra-Uterine Pregnancy Operated Upon at the Eighth Month—Recovery.—Prof. H. C. Dalton, M. D., St. Louis.

19. Does Missouri Need a Home for Epileptics?—Geo. R. Highsmith, M. D., Carrollton.

20. Quinine Blindness—The Amaurotic Form of Tabes—Hydrophthalmos—Report of Cases.—Prof. James Moores Ball, M. D., St. Louis.

21. The Way to Determine the Qualifications of Matriculates in Our Medical Schools.—W. Francis Mitchell, M. D., Lancaster.

22. A Rapid Treatment of Chancroid and Syphilitic Ulcerative Lesions.—A. H. Ohmann-Dumesnil, M. D., St. Louis.

23. Physiological and Pathological Intemperance.—Edward E. Parrish, M. D., Memphis.

24. Spina Bifida and Its Treatment, with Report of Cases.—Prof. T. F. Prewitt, M. D., St. Louis.

25. Some Phases of Intestinal Obstruction.—Prof. A. H. Cordier, M. D., Kansas City.

26. Report of Committee on Progress in Obstetrics.—Prof. B. M. Hypes, M. D., Chairman, St. Louis.

27. Report of Committee on Progress in Gynæcology.—George F. Hulbert, M. D., Chairman, St. Louis.

28. The Progress of Phthisical Processes in the Lungs by Way of Bronchi.—Prof. Wm. Ophuls, M. D., Columbia.

29. Report of Committee on Progress in Pediatrics.—I. N. Love, M. D., Chairman, St. Louis.

30. Report of Committee on Progress in Surgery.—Prof. Andrew L. Fulton, M. D., Chairman, Kansas City.

31. Asexualization as a Preventive of Pauperism and Crime.—R. S. Kelso, M. D., Joplin.

32. The Treatment of Chronic Hypertrophic Tonsilitis in the Light of Modern Theories of Infection Through the Tonsil.—Prof. Hanau W. Loeb, M. D., St. Louis.

33. Report of Two Cases of Intracranial Aneurism.—Prof. J. D. Griffith, M. D., Kansas City.

34. Report of a Case of Castration for Enlarged Prostate, Followed One Year Later by Prostatectomy; With Presentation of Patient.—Prof. C. M. Nicholson, M. D., St. Louis.

35. Title unannounced.—J. Block, M. D., Kansas City.

36. Fat Embolism, With Report of a Case.—T. B. Ellis, M. D., Bethany.

37. Stricture of the Esophagus.—Paul Paquin, M. D., St. Louis.

38. When to Do Colpo-Hysterectomy, and Methods.—Prof. Milo Buel Ward, M. D., Kansas City.

39. Surgical Anatomy of the Ankle-Joint.—Prof. Herman E. Pearse, M. D., Kansas City.

40. The Effects of Osteopathy Upon the Patient, and Upon the Business of Reputable Physicians.—Whitley G. Hendrix, M. D., New London.

41. How to Give Prompt and Permanent Relief in Prostatic Obstruction.—Geo. Wiley Broome, M. D., St. Louis.

42. A Plea for Early Operation in Cholelithiasis.—Prof. A. H. Meisenbach, M. D., St. Louis.

43. Facial Erysipelas—Its Treatment.—Z. T. Martin, M. D., Lathrop.

44. Treatment of Hemorrhoids by the Clamp and Cautery Method.—Prof. S. G. Gant, M. D., Kansas City.

45. Subject unannounced.—N. M. Baskett, M. D., Moberly.

46. The Application of Protargol in Ophthalmic Surgery.—Prof. B. E. Fryer, M. D., Kansas City.

47. Typhoid Fever.—Robert E. Sevier, M. D., Liberty.

48. Traumatic Injuries of the Urethra.—J. W. Holliday, M. D., Tarkio.

49. Electro-Therapeutics.—Prof. Brummell Jones, M. D., Kansas City.

50. Pneumonia.—Tinsley Brown, M. D., Hamilton.

51. Can Cancer of the Uterus be Cured?—Emory Lanphear, M. D., St. Louis.

THE BURLINGTON ROUTE.

The Burlington Route wishes to announce that it will run a special train from St. Louis to Denver for the members of the American Medical Association and their friends. This train will be made up of the Burlington's finest modern equipment, comprising café, sleeping, and dining cars, and will be under the supervision of well-known members of the Association, who will, in due time, publish a circular giving detailed information about the trip, with train schedule, rates, routes, etc. At the time of this convention the Omaha Exposition will be open, and doubtless many excursionists will desire to stop en route returning, to visit this wonderful exposition.

The Burlington Route, having three through lines, will be able to give more diverse routes over its own system than any other railroad. No line between the Mississippi Valley and the Rocky Mountains is so well able to take care of large excursions involving special train, etc., as the Burlington Route.

Members of the American Medical Association and their friends will find it distinctly to their advantage to withhold making arrangements until they have received the formal announcement of the Burlington Route special train. For further particulars address L. W. Wakeley, General Passenger Agent, St. Louis.

Practice for Sale.—In a city of 4000 in western Iowa. Good for from $2,000 to $3,000 a year cash. Price $600, which includes team, buggy, sleigh, office furniture, and everything complete. Address "*Practice*," care of TRI-STATE MEDICAL JOURNAL.

Foot Test for Crime.—We quote the following from the *British Medical Journal:* "The medical press comments on Colonel du Paty de Clam's 'foot test' (*l'épreuve du pied*), described in court during the Zola trial, and applied to establish the guilt of the ex-Captain Dreyfus. Needless to say, the comments are not respectful. This test of medical jurisprudence is as follows: Agitation when felt by persons who can master themselves and hide their feelings is often betrayed by a trepidation of one of the feet when the legs are crossed. M. Paty du Clam appeared without warning at the prisoner's bedside, and he assured the court that he had observed this fact, which, added to others, deepened his belief in the guilt of the accused. It is asked if, after these extraordinary revelations, the medical faculty ought not to be invited to study this new method of psychological investigation."

Podology had its birth in France. Mercier, the author of *Tableau de Paris*, thus descants concerning the foot: "It is not in the head that ideas reside, nor by the head that man differs from other animals; that a man without a head would not on that account be less reflecting; in short, that the head says nothing, does nothing, and contributes nothing, to the observation of man. It is his foot which does everything. It is in the foot that we must seek and find the stamp of man's original dignity. In the foot? Yes, sir, in the foot! Look at the footman who smiles at your surprise—is it not the foot which supports the head? Does not the foot express anger and indignation? In Spain all matters of love and gallantry begin with the foot. The foot in China plays the first part. There is nothing more rude than to tread upon another's foot; for when a man gets intoxicated, his foot refuses to carry him in that state of debasement. In fact, the foot cannot lie, like the mouth and eyes. You must perceive, then, that the foot has all those qualities which prove a man to be a thinking being; or, in other words, the foot is the seat of the soul (sole). If you would know, therefore, whether a woman is tender or faithless, if a man has the understanding of Montesquien or the folly of M. Paty du Clam, instead of looking at his other belongings, look at his foot." We are glad to know that a foot has no nose, hence it is happy. But many people have scented about a foot other things than crime.

McKesson & Robbins, of New York City, will mail free to physicians a book on guaiaquin (guaiacol bisulphonate of quinine) containing, in addition to other valuable information, a number of very fine colored plates showing the life history of malarial parasites. The plates are the most complete issued, and will be of value to physicians interested in malarial fevers.

Spruce Bark Bed Clothing.—Attention of readers is called to the advertisement of King-Jones Co., Toronto, Canada. The odor of the spruce has a pleasant tonic effect most gratifying to patients. Spruce bark comfortables and sheets are made from the inner bark of the Canadian balsam spruce, and by special process of preparation retain the strong, aromatic and balsamic properties.

Rubaiyat of Doc Sifers.—By JAMES WHITCOMB RILEY. Illustrated by C. M. RILYEA. Octavo, pp. cv. New York: The Century Co., 1898.

The "Rubaiyat of Doc Sifers" must be read to be appreciated. Here is what Riley says of his hero:

"We found him in that Far-away that yet to us seems near,
We vagrants of that yesterday when idlest youth was here—
When lightest song and laziest mirth possessed us through and through,
And all the dreamy summer earth seemed drugged with morning dew:
Aye, even then—O timely hour—the high gods did confer
In our behalf—and, clothed in power, lo, came their Courier—
Not winged with flame nor shod with wind, but ambling down the pike
Horseback, with saddlebags behind, and guise all human-like.
And it was given us to see, beneath his rustic rind,
A native force and mastery of such inspiring kind,
That half unconsciously we made obeisance—smiling thus.
His soul shone from his eyes and laid its glory over us.

* * * * * * * *

Tho' faring still that Far-away that yet to us seems near,
His form, through mists of yesterday, fades from the vision here.
Forever as he rides, it is in retinue divine—
The hearts of all his time are his, with your true heart and mine."

Illustrated Skin Diseases.—An Atlas and Text-Book. By WILLIAM S. GOTTHEIL, M. D., Professor of Skin and Venereal Diseases in the New York School of Clinical Medicine. Porfolios I., II., and III. New York: E. B. Treat & Co., publishers, 241–243 W. Twenty-third street. Price per part, $1.00. To be completed in thirteen parts.

It is not surprising that the attempt to depict on paper and preserve permanently the varied and evanescent forms of skin diseases has occupied the attention of many dermatologists. Yet it can hardly be claimed that a degree of success commensurate with the efforts made has been attained; which is largely due, of course, to the necessary limitations of the methods employed. Photography gives us form, but color, an element of equal importance in depiction, is absent. It can rarely be done from life by the anatomical artist, and when possible, entails an expense that is almost prohibitive; it can never be as delicately minute as nature is. Chromolithography, at best, is more or less crude, since it is an attempt to imitate the varying tints and shades of nature in a few striking colors by mechanical processes.

In this combined Atlas and Text-Book of Skin Diseases the colors are as true as the forms, since both are obtained through the camera. The vast strides made in *color-photography* during the last year or two have rendered it possible to produce a series of life-like representations. The artist's brush has not been used, and the color-plates are made from color negatives directly taken from living subjects. *Additional features are:*

1. The introduction into the text of a large number of illustrations in black and white, made, for the most part, from negatives taken of the author's own cases, drawn from his extensive hospital, dispensary and private practice, and made under his immediate supervision.

2. The few necessary anatomical and pathological illustrations are mostly photo-micrographs, made with the camera from actual section.

3. The great advances made in dermato-therapeutics and the modern methods of treatment are fully recognized.

This monumental work is finished, and we understand that the publishers will furnish it bound in half-morocco for $15.00.

The Doctor's Window.—Poems by the Doctor, for the Doctor, and about the Doctor. By INA RUSSELLE WARREN. With an Introduction by WILLIAM PEPPER, M. D. Octavo, pp. 288. Buffalo: Charles Wells Moulton, 1898.

The Doctor's Window contains a large number of choice poetical selections, either written by or about doctors. A preface by William Pepper adds to the value of the work. The book is just the thing for the physician's reception room. It is superbly printed and the illustrations are beyond criticism.

Orthopedic Surgery.—By JAMES E. MOORE, M. D., Professor of Orthopedic and of Clinical Surgery in the College of Medicine of the University of Minnesota. Octavo, pp. 354. Philadelphia: W. B. Saunders, 925 Walnut street, 1898. Price, $2.50 net.

Dr. Moore presents this book as a text-book for students and a ready-reference work for practitioners. All that is not of practical value has been eliminated. Special stress has been laid upon early diagnosis and simple methods of treatment. The doctor is a general surgeon, who has taught orthopedic surgery for many years, and he is qualified to treat the subject in a broad and comprehensive way.

Klemperer's Clinical Diagnosis.—By DR. G. KLEMPERER, Professor at the University of Berlin. First American from the seventh and last German edition; authorized translation by NATHAN E. BRILL, A. M., M. D., Adjunct Attending Physician, Mount Sinai Hospital, and SAMUEL M. BRICKNER, A. M., M. D., Assistant Gynæcologist, Mount Sinai Hospital Dispensary, is announced for early publication by the Macmillan Company.

Dr. Klemperer's work on Clinical Diagnosis is widely known, and all English readers will be rejoiced to find within their reach this very comprehensive, but condensed manual. Its chapters deal with the inspection

and examination of the patient, the diagnosis of the acute infectious diseases, diseases of the nervous system, digestive diseases, each under its special symptomatology, diseases of the respiratory apparatus, the heart and circulation. Two chapters are devoted to urine analysis and to the diseases of the kidneys. The four concluding chapters deal with the disturbances of metabolism—the diseases of the blood, the Roentgen rays as diagnostic aids, and animal and vegetable parasites, including such bacteria as are of clinical importance.

No book so complete, short of a text-book of medicine, is before the American medical public. It has passed through seven editions in its original language (German) in as many years. The German school leads in clinical diagnosis, and this little work is an exquisite example of its methods.

Hugh Wynne, Free Quaker, Sometime Brevet Lieutenant-Colonel on the Staff of his Excellency, George Washington. By S. WEIR MITCHELL, M. D., LL. D. (Harvard and Edinburgh). New York: The Century Co., 1898.

Dr. S. Weir Mitchell has written the great American novel for which men of letters have long waited. We will not attempt to describe this book, but will say that, having read it carefully and with the greatest interest, we advise others to do likewise.

Sir James Young Simpson and Chloroform (1811–1870).—By DR. LAING GORDON. Octavo, pp. 233. New York: Longmans, Green & Co., 1898.

In our February issue a notice appeared of D'Arcy Powers' "William Harvey." The volume whose title is printed above belongs to the same series. Doctor Laing Gordon gives a graphic account of the struggles and triumphs of Sir James Simpson.

The International Medical Annual and Practitioner's Index for 1898.—New York: E. B. Treat & Co., 241–243 W. Twenty-third street. Octavo, pp. x–740. Price, $3.00.

The Medical Annual has gained a permanent place in medical literature, and should be found in the library of every doctor. The present volume is unusually valuable.

A Text-Book on Surgery.—By JOHN A. WYETH, M. D., Professor of Surgery in the New York Polyclinic Medical School and Hospital. Third edition. Royal octavo, pp. x–997. New York: D. Appleton & Co., 1898.

It is now twelve years since the appearance of Wyeth's Surgery. It is sufficient to say that in its present form the book represents correctly the advanced state of surgery of to-day, and that no one-volume work is superior to it.

The Physicians of Missouri, Illinois, Arkansas and Texas are to be congratulated that St. Louis offers them in the St. Louis Physicians Supply Company a house where they can get their drugs, instruments, tablets, fluid extracts, and surgical sundries. This house tries to fill all the wants of the physician. The president of the company, who is also manager, is an experienced druggist, and superintends the manufacture of their specialties. Read their advertisement on page 2, and send for their catalogue. Their "Special Preparations," for physicians, are just the thing for the country physician who dispenses his own medicines.

Practice Sold.—Dr. J. G. Mastin, of Byron, Ill., has sold his practice to Dr. J. Alba Johnson.

McDonough County (Ill.) Medical Society.—This society was organized recently at a meeting held in Macomb, and the following officers chosen: President, E. R. Lewis, of Macomb; First Vice-President, J. J. Parker, Bardolph; Second Vice-President, O. A. Blair, New Philadelphia; Secretary and Treasurer, Dr. Miner, of Macomb.

Resigned.—Dr. A. L. Warner, for seven years assistant superintendent of the Illinois Eastern Hospital for the Insane, at Kankakee, has resigned and will practice in Chicago.

Located.—Dr. E. E. Smith has located in Sioux Rapids, Iowa; Dr. W. J. Herrick at Parnell, Iowa; Dr. W. A. Thompson at Garva, Mo.; Dr. F. W. Loomis at Shannon City, Iowa; Dr. T. C. Gorman at Anamosa, Iowa; Dr. L. D. Applewhite at East St. Louis; Dr. R. L. Green at Peoria, Ill.; Dr. W. R. Mangum at Murphysboro, Ill.

Elected to a Professorship.—Dr. W. W. Essick, of Murphysboro, Ill., has been elected to the chair of railway surgery in the St. Louis College of Physicians and Surgeons. He is one of the surgeons of the Mobile & Ohio Railway.

Graduation Exercises.—The St. Louis College of Physicians and Surgeons graduated a class of 105 on March 16th. The exercises were held in the Fourteenth Street Theatre before a large audience. The faculty valedictory was given by Prof. James Moores Ball; the class valedictory by Dr. W. E. Shouse, and the conferring of degrees by Prof. Waldo Briggs. Prof. A. E. Mink was the "florist." The class was an exceptionally fine one, and made a good appearance in caps and gowns.

New Corporation. — The Sanguiferrin Pharmacal Company, of St. Louis, has been incorporated by A. J. Zimmerman, D. H. Dyer, and John Crouch.

Beaumont Commencement.—The Beaumont Hospital Medical College, of St. Louis, graduated a class of twenty-eight on March 26th.

A Neat Hospital. — St. Andrew's Hospital, at Murphysboro, Ill., is one of the neatest and best institutions of its kind in the Mississippi Valley.

Southern Illinois Medical Society.—The annual meeting will be held at Carmi, May 12 and 13, 1898. Dr. H. C. Mitchell, of Carbondale, is President, and Dr. J. O. DeCourcy, of St. Libory, is Secretary. At this meeting a proposition will be voted on to change the annual meeting from May to November and abolish the semi-annual meeting. A large attendance is expected.

Central District Medical Society.—This society will meet at Pana, Ill., April 26th. Dr. J. N. Nelins, of Taylorville, is Secretary.

Southeast Missouri Medical Association.—This society will meet in annual session at Cape Girardeau, May 3, 4 and 5, 1898. A very good program has been issued. The officers are: President, J. P. Sebastian, of Patterson; Vice-President, I. W. Powell, of Holcomb; Corresponding Secretary, M. Rosenthal, of Kennett; Recording Secretary, G. S. Cannon, of Jackson; Treasurer, R. T. Henderson, of Jackson.

Pleasure Without Other Sensations.—While exploring the sensations of various parts of the body, about a year ago, I chanced to notice a phenomenon of which I find no mention in the various physiologies and psycologies. I submit the brief statement in the hope of learning if any one has previously made a similar observation, or if the fact, which I have repeatedly observed, can be confirmed by physicians who have the opportunity of testing large numbers of patients. The observation may be summed up as follows: Whereas the surface of the glans penis is moderatively sensitive to the pointed end of a toothpick and responds strongly to the point of a pin, the mucous membrane around the orifice of the urethra is absolutely lacking in sensations to touch in either case, although strong pressure with the point of a pin will cause pain. There is, however, another sensation aroused by the application of any object to this mucous membrane—namely, that of pleasure—which increases directly with the degree of erection. The confirmation of this observation would establish the hitherto unrecognized fact of the separate existence of pleasure as an independent sensation, a fact of considerable importance in the psychology or feeling.—SCRIPTURE, in *New York Medical Journal.*

Psychology revels in startling elements. Here we have experiment, pleasure, and feeling—these three words constitute a triology of interest. The passing thought of man concerning them contains pointed psycological truth. Experiment, we are told, is energy out of a job; while Sir William Hamilton says that pleasure is the reflex of unimpeded energy; and Charles Kingsley thus sums up: "The feelings are like chemicals: the more you analyze them, the worse they smell. So it is best not to stir them up very much; only enough to convince one's self that they are offensively wrong, and then look away as far as possible out of one's self for a purifying power."

PUBLISHER'S DESK.

December 3, 1897.

THE PHENO-BROMATE CHEMICAL COMPANY,
No. 38 Murray street, New York.

Gentlemen:—As you have so very kindly furnished me with an adequate supply of your preparation, pheno-bromate, to use in my wards, especially to observe its effects, I am pleased to report that it has given me great satisfaction. I think you will be particularly interested to know of its efficiency in acute articular rheumatism, so give you the results of several cases in which it was employed.

Used conjointly with sodium salicylate, I found in every case I could diminish my dose of sodium salt one-half while controlling the pyrexia and joint symptoms. In no instance did I need to push the salicylate to its physiological limit, as was the case in giving the sodium salt alone. My maximum dose of the combination was: Pheno-bromate, gr. xv.; sodium salicylate, gr. xv., administered every two hours, which gave me control of the disease, as employed in six cases, within twenty-four hours. As a check on this treatment I employed pheno-bromate alone in four cases, controlling the pain and reducing the pyrexia, but I could observe no specific action on the disease.

My observations led me to the following conclusions: First, as an antipyretic and anodyne, pheno-bromate promises much, being absolutely safe, even in asthenic cases (in one case of sciatica I have given eighty grains every three hours for twenty-one hours, with entire impunity). Secondly, by combining pheno-bromate with salicylic acid or its salts, it is possible to avoid the physiological effects of the acid and its derivations by giving much smaller doses. I also found in those cases where the heart is not already involved, that pheno-bromate apparently does away with the liability or endocarditis, although it is manifestly too early to state positively that this is absolute.

In my hands pheno-bromate has supplanted the other remedies which I formerly employed in neuralgia and migraine, giving me a more speedy as well as a more enduring effect; also, what is of inestimable advantage, it possesses, in addition to its antipyretic and analgesic qualities, that of a true hypnotic.

I believe, gentlemen, you have a valuable preparation, and one which I propose trying far more extensively in all cases where I desire reduction of temperature, relief from pain, and a sound, refreshing sleep.

Wishing you all the success which your product merits, I remain,

Very truly yours,

CHARLES S. BENSON,
House Physician.

Almshouse Hospital, Blackwells Island, New York.

Sanmetto a Standard Remedy in Genito-Urinary Diseases.—I have prescribed sanmetto in a large number of cases of genito-urinary troubles during the past four years, and with uniformly good success. In prostatic

troubles of old men, with difficult micturition, it acts like a charm. In cases of irritable bladder with incontinence of urine, I have never met with any remedy that acts so well. I prescribe it frequently, and shall continue to do so, as I look upon it as a standard remedy. J. F. SUYDAM, M. D.
Alma, Mich.

BALTIMORE, MD., February 18, 1898.

THE MERZ CAPSULE CO., Detroit, Mich.

Gentlemen:—Some time ago I received samples of your compound sandalwood capsules No. 17.

Recently I had a severe case of gonorrhœa for treatment. After treating the case with some of the remedies usually resorted to in such cases with poor success, I gave the capsules which you sent to me a trial, and in less than four days the patient began to improve rapidly, and kept on improving as long as the capsules lasted. Will you kindly send me 100 more, for which inclosed please find $1.00, as I shall use them in my practice in the future. Kindly forward them as soon as convenient.

Very truly yours, E. E. GOODRICH, M. D.

Chalybeate Purgative.—The New York *Medical Journal* (September 25, 1897) quotes Dr. C. E. Williams as suggesting:

℞	Ferratin	2 drachms
	Sodium bicarb	2 "
	Powd. rhubarb	4 "
	Oil of fennel	30 drops

M. Sig.—Dose, a teaspoonful.

Primary Syphilis.—In the treatment of primary syphilis mercury is almost a specific. Bichloride of mercury is the best form, given by os, hypodermically or by inunction; the last two forms of treatment, however, are very disagreeable, necessitating personal attendance on the part of the physician, and preventing the patient from attending to his duties, if they be such as to leave him no time during the day, or perhaps requiring his leaving the city.

If we now consider that, next to mercury, tonics of iron and arsenic are the most important drugs to be given, Henry's three chlorides, which contain all three ingredients and never causes any disagreeable symptoms, is the desideratum in the treatment of syphilis.

It has been intimated that maliciously-disposed dealers when interviewing the medical profession have stated that Gude's pepto-mangan is placarded on walls, fences, etc. The intention of such an assertion is evident, and is false in every particular.

There is a Sign Advertising Co. in New York City whose line of work is in that direction. Being of the same name "Gude" they place their name in bold letters, and a passing glance might create the impression that Gude's pepto-mangan was being so advertised. This is positively not so.

The M. J. Breitenbach Co., agents for Gude's pepto-mangan, have been before the medical profession of this country for upwards of seven years, and have conducted their business in the highest ethical manner.

In the *Atlanta Medical Journal* of February, 1898, Dr. Herman D. Marcus, late Lecturer on Materia Medica at Medico-Chirurgical College, Philadelphia, Pa., says: "In fifty-five cases of uterine and vaginal diseases, I have used Micajah's medicated uterine wafers with distinctly favorable results, as follows: Thirty-eight were cured, nine greatly improved, and the balance unimproved; a percentage of cures larger than from any other form of treatment. Some twenty-five or thirty cases of leucorrhœa treated with these wafers showed cures in three to six weeks."

[A sample of Micajah's medicated uterine wafers will be sent free by addressing Micajah & Co., Warren, Pa.—ED.]

Polk's Medical and Surgical Register of the United States and Canada is now undergoing its fifth revision. Physicians who have not given their names to the canvassers are urged to report to headquarters at once, giving full information. Address R. L. Polk & Co., Detroit, Mich.

For the Denver Meeting.—Parties desiring to attend American Medical Association meeting, to be held in Denver, June 7th to 12th, will find it to their interest to call upon or address ticket agent Frisco Line, 101 N. Broadway, St. Louis. A very low rate will be made for this occasion. Sleeping-car berths can be secured in advance.

"**For that** most aggravating complaint, catarrhal fever, I obtained such unexpectedly prompt results by the use of tongaline and quinine tablets that I have prescribed the combination for every similar condition which has since come under my care, with marked success in each instance.

"One evening I was called to attend a gentleman, a member of my own family, who had just returned from a trip, during which he had contracted a well-developed case of catarrhal fever as the result of a severe cold. His pulse was 120°; temperature, 102.2°; skin hot and dry; pain all over the body; and a splitting headache; all the mucous tissues were inflamed, involving the nasal tract, throat, and bronchial tubes; the eyes were watery; the nose was running; throat sore; in fact, his whole system was thoroughly congested.

"It was very important that he should be able to travel within a day or two. I ordered him to take a hot foot-bath, then drink a hot lemonade and go to bed. I left him six tongaline and quinine tablets, with instructions to take one every half hour, washing it down with plenty of hot water.

"I saw him about 7 o'clock the next morning, and received the following report: About one hour after going to bed he commenced perspiring freely, and began to experience a feeling of drowsiness, so that before he had taken all of the tongaline and quinine tablets he fell into a refreshing sleep, from which he did not awake until 5 o'clock. I found his pulse was normal; temperature 99°; skin moist; the pain entirely gone, and all the unfavorable symptoms decidedly improved; in fact, the trouble was entirely under control. I prescribed a mild cathartic and by the following day he was able to go on his way rejoicing.

"Chicago. FRANK A. BARBER, M. D."

THE TRI-STATE MEDICAL JOURNAL AND PRACTITIONER.

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CLINICAL LECTURE.

CLINICAL REMARKS ON STRICTURE OF THE URETHRA.

By REGINALD HARRISON, F. R. C. S.,
Surgeon to St. Peter's Hospital, London, England.

THE following classification of strictures is one which may be conveniently used for clinical purposes:

First.—Those amenable to some form of dilatation.

Second.—Those found unadapted for such treatment, and where other measures should be considered.

Third.—Those which are stated or are found to be impassable strictures.

I shall limit my remarks to questions arising under these three headings.

The first class includes by far the greatest number, and all strictures in their early stages. When this process of treatment proceeds satisfactorily, as it usually does, the patient is soon able to undertake the management of his own case after he has been instructed in the use of the appropriate instrument. For whatever is done in the way of treatment by dilatation, or otherwise, in the majority of advanced forms of urethral obstruction the patient can seldom hope to entirely dispense with the passing of a bougie.

When a person who is suffering from symptoms which may indicate stricture presents himself for the first time, much care is required in exploring his urethra with a catheter or bougie. It is very easy to spoil a stricture, and so lose the way through it. Thus, future access to the bladder may be rendered rather more, than less, difficult. On making an examination of this kind, our object should be to ascertain, without causing pain or bleeding, if possible: (1) the presence and position of the obstruction; and (2) the degree of contraction that has been arrived at. It is undesirable to endeavor to pass an instrument into the bladder without knowing all this beforehand, otherwise we may easily select one too large for the purpose, and so in the first attempt do more harm than good. The thinnest end of the wedge must first be inserted, and then the dimensions of the contraction can be readily and accurately gauged.

In view of giving effect to these points, I described, fifteen years ago,[1] a flexible conical bougie or dilator which, so far as my experience of it goes, has superseded most instruments of this kind and been the means of considerably reducing the number of what are called impassable strictures. These instruments are used both for locating and measuring all kinds and degrees of urethral stricture. They are about twenty inches long, commencing with a fine probe-ended extremity, which gradually expands in the opposite direction. They are made in different sizes, and are rendered extremely flexible when placed in warm water for a few minutes, if necessary, before using them. In this way they will readily coil up within the bladder. I much prefer the French make (Lassére's). I find them useful, not only for the purposes I have mentioned, but for smoothing out a rough urethra and making the access to a stricture funnel-shaped, so that it may be easily entered by almost any other instrument. The late Mr. Lund, of Manchester, christened them "whips" when I first showed them and he adopted them, and they have since always gone by this name.

Bangs' filiform bougies, made on the same principle, of the finest whalebone, are applicable to even more contracted forms of obstruction; such, for instance, as the eccentric pin-hole strictures that are occasionally met with. They may also often be used with advantage as pilots for the "whips." I can strongly recommend both of these instruments to practitioners who are liable to meet with stricture cases and have not hitherto given them a trial.

Either of them will do duty in an emergency in relieving a retention of urine, in the absence of a catheter, by at once dilating the stricture to almost any extent by a single introduction of the instrument. On its withdrawal the patient is usually able to empty his bladder immediately by his own efforts. I have frequently used them in this way with prompt relief. I think they should be more generally known. No force can be exercised by them, otherwise they will double up and the object be defeated.

Passing to the second class of cases, which includes strictures found on trial unadapted for any form of dilatation. When for any reason a large amount of scar tissue has been imported into a stricture—as, for instance, in obstructions following wounds and injuries of the urethra—it may be found impossible to sufficiently dilate the contraction that follows. This may proceed from some difficulty in connection with the access or

[1] *The Lancet*, February 3, 1882.

entrance to the stricture, as when damage has been done to the interior of the urethra, from the inherent contractility of the tissue composing the obstruction, or from certain constitutional disturbances following attempts at dilatation even of the gentlest and most gradual kind. Let me briefly illustrate these three conditions:

CASE 1.—A man, aged forty-two, saw me in 1890, under the following circumstances: He was a great traveler, and though he had a slight stricture, for which he occasionally used a bougie himself, he was not inconvenienced by it. About a year before I saw him he had sudden retention of urine following a chill when he was in a remote part of Australia, and there had been much difficulty and bleeding in relieving him with a metal catheter. Since this happened he had never felt certain whether he would be able to pass his bougie. Sometimes it would enter and at others it would not. Though he continued to pass his urine in a fair stream, this uncertainty unnerved him and prevented him traveling abroad as an explorer, as he had been accustomed to do. In every other respect he was in excellent health. I examined him and found a short *cul-de-sac*, which was probably the remains of a false passage below the line of his stricture, and which occasionally caught the tip of his bougie and prevented it entering the stricture above. There was, in fact, a sort of valve arrangement. I did an internal urethrotomy for him and divided the floor of the stricture, so, as it were, throwing the siding into the main line. He has since had no difficulty whatever, and has resumed his explorations in various parts of the world.

CASE 2.—This was a man, thirty years old, who in 1893 damaged his deep urethra by being thrown forwards onto the pommel of his saddle. A stricture followed, which proved most contractile. There was no difficulty in dilating it up to a No. 12 (English size), but this was invariably followed by an attack of retention of urine in the course of a few hours. It was all the same, whatever degree of dilatation was attempted. I advised an internal urethrotomy to be done. A splice of new tissue was thus introduced, and he has since been free from all further inconvenience beyond occasionally passing a full-sized bougie himself.

CASE 3.—A man, aged fifty years, who had spent much time in Africa and had contracted several malarial fevers. One or other of these was invariably roused up when he passed his bougie, in spite of large doses of quinine taken as a preventive. The fever necessitated his spending two or three days in bed on each occasion. The stricture was a very contractile one, and though the instrument passed tolerably easily, on its withdrawal it was firmly gripped, and then the constitutional symptoms followed. I performed an internal urethrotomy for him, after well sterilizing his urine and taking other antiseptic precautions (as I shall presently note). The patient has since had no further trouble of this kind. It is interesting to observe the effect of tension and its removal relative to the production and prevention of urethral fever, and the other fevers which it resembles.

In cases such as these and the like, we may do immediate and permanent good to strictures that will not yield to dilatation alone, and thus prevent the bad effects of back pressure gradually extending to the bladder and kidneys above, by introducing a splice of new material into the con-

tracted portion of the canal, much on the same principle as we should expand a tight garment.

For these purposes I usually select Maisonneuve's instrument. It consists of a fine pilot and director, upon which a small triangular knife, dulled at the apex, runs. It can thus only divide the contracted portion or portions of the canal, and this it does by a clean linear longitudinal incision corresponding in depth with the size of the blade. As healing takes place, under the occasional use of a bougie, a splice or interval of new tissue is introduced between the lips of the incision, and thus the caliber of the canal may be considerably increased in a short time. For forty-eight hours or so before this is done it is well to sterilize the urine with some boric acid taken by the mouth in small doses; or with what I have found still better—by boracite. The former sometimes produces indigestion, whilst the latter is both pleasant and reliable. The filiform pilot is then passed through the stricture into the bladder, the fine metal director following it. The urethrotome is next run along the groove in the latter, and the stricture or strictures are divided from before backwards. Care should be taken not to run the blade further that the last point of contraction, so as to avoid touching any fibers of the bladder sphincter. The latter is unnecessary and may cause some bleeding. To make sure that all stricture fibers are severed and a clear interval is provided between the lips of the incision thus made, a short series of Lister's metal bulbous bougies (10–15 English gauge) should be successively passed before the patient recovers from the anæsthetic. The ordinary round-ended bougies are not suitable for this purpose, as they may catch in the lips of the wound. It is a matter of much importance to secure a perfectly smooth soft scar. All metal instruments for use in connection with a strictured urethra should be bulbous or olive headed. The bladder is then emptied of any urine it may contain and washed out with a solution of hydrarg. perchlorid ($\frac{1}{6000}$) until the lotion returns quite clear. An ounce or so of the solution is left behind in the bladder, so that the first portion of the urine voluntarily passed is sterilized. This completes an operation which need not occupy more than a few minutes. Carbolized vaseline (gr. ij., ad ℥ij.) is used for the instruments.

I rarely tie a catheter in the bladder unless, as sometimes happens, a chronic stricture has induced an atonic bladder, when a soft rubber catheter may be retained for forty-eight hours or so; otherwise we may have high temperatures until the viscus is artificially emptied. With these antiseptic precautions there is seldom any marked degree of urinary fever. On the fourth or fifth day after, a whip bougie is generally passed and the patient instructed in the use of a suitabl instrument.

For many years Maisonneuve's operation has commended itself to me on the grounds of its simplicity, its adaptability to the most contracted forms of stricture, and the benign character of the scar tissue that usually results. I have, therefore, referred to some details to which I have learnt to attach considerable importance. The extension of the antiseptic principle to these operations has, in all respects, greatly benefited them.

Still more rarely there are cases of stricture met with where neither dilatation nor internal urethrotomy will cover the ground the contraction occupies. Instances occur when, by reason of contraction, abscess and fis-

tula, the perineum and urethral wall become matted together and converted into a hard mass of dense warty-looking tissue, which can be only successfully dealt with by some form of perineal section. This, however, though the cases may be comparatively few, is a subject of itself, and requires a consideration which cannot be included within the limits of these remarks. It must be reserved for another occasion.

I will therefore pass on to the third division of my classification: cases which present for treatment on the ground that they are suffering from an impassable stricture. In my earlier days I was much impressed by the teaching of Syme, endorsed by Bickersteth, of Liverpool, in his practice, to the effect that such a term as "impassable" could only be used in a somewhat relative sense, and was inapplicable unless the canal was structurally or, if I may use the term, hermetically closed; as, for instance, when a urinary fistula co-existed.

Syme thus refers to this point: "There is nothing of more consequence in the treatment of stricture than knowledge of the fact that this alleged impermeability has no real existence except in those rare exceptional cases where the urethra has been divided by violence and allowed to cicatrize, with obliteration of the passage beyond the opening at the seat of injury. It is obvious, indeed, that if the urine is permitted to pass, no matter in how small a stream, there must be room for the introduction of an instrument, provided it be sufficiently small and properly guided."[1]

This is a high ideal to take and to attempt to follow, but it puts into prominence the first principle associated with the treatment of urethral stricture, whatever form it may assume. Though we may fail to attain it, the possibility of doing so, in a legitimate and scientific manner, should never be lost sight of. If such a conclusion as this could have been arrived at in the time of Syme, how much more so is it within our reach in the present day, after what has been done in improving the construction of all kinds of instruments used for this purpose?

Though much patience and tact is often required in obtaining access to the bladder through a contracted stricture, failure, I believe, need now but rarely occur. Nor is the attainment of this a matter of indifference, relative merely to the adoption of one out of two elegible courses. Experience shows that as there are strictures which need not be cut merely because they may seem, in the first instance, to be impassable, so far as a bougie is concerned, so are there strictures which, though passable in this sense, are yet found to need cutting. No sufficient answer can be given to the important question that is thus raised until a stricture has been fully explored; and this, I believe, can be generally done.

For an impassable stricture I do not think there can be any better alternative than the one associated with the name of Mr. Wheelhouse, where the contraction is sought for by opening the perineum. It would, however, not be difficult to find many surgeons largely engaged in operative work, who have never availed themselves of this proceeding, on the ground that a stricture had resisted all legitimate efforts to enter the bladder along the urethra.

[1] "On Stricture of the Urethra." 2d ed., 1855.

ORIGINAL ARTICLES.

TRAUMA AS A FACTOR IN PRODUCING MALIGNANT DISEASE.[1]

By D. S. FAIRCHILD, Clinton, Iowa.

THE frequency of carcinoma and sarcoma has led pathologists, since the beginning of the new era in medicine, to seek for the cause or causes of these diseases.

Following the discovery of the influences of micro-organisms in producing inflammatory and septic processes, and particularly in producing tubercular new formations, came the efforts to show the possible relations of some micro-organism, yet undiscovered, to carcinoma and sarcoma, but as yet without success; and we may, very properly, in the present state of medical science, leave out of consideration the whole question of the parasitic origin of malignant growths, and confine ourselves to the practical clinical question of how these new formations develop, and under what influences they appear and extend. We may or may not accept Conheim's theory of a tumor matrix being the remote cause of all tumor formations. The practical question for us to consider in this discussion is the influences of trauma, injury, or irritation, in producing malignant growths.

It is a well-accepted fact in pathology that carcinoma is formed from the irregular and riotous proliferation of epithelial cells from epithelial surfaces, or from the epithelium of glands or their ducts; or, if we accept Conheim's theory, from included prenatal embryonic cells; and sarcomas from proliferating connective tissue elements originating in the same manner.

Assuming a predisposition from inheritance, age or circumstances in the development of carcinoma, we may easily accept the prolonged influence of irritation as a direct exciting cause of epithelial proliferation, giving rise to cancer. While trauma in the form of continued irritation may thus prove a sufficient cause for the development of cancer, it is much more difficult to accept a single application of force—as a bruise—as a sufficient cause.

In relation to sarcoma, the conditions are different. A single blow or bruise received on a part may so disturb the processes of nutrition as to give rise to a proliferation of connective tissue-cells, and thus lead to that form of developmental energy which gives rise to a sarcoma. This being accepted as true, the important question next arises: What relation in time

[1] Read before the Tri-State Medical Society of Iowa, Illinois and Missouri, at Dubuque, Iowa, April 6 1898.

must the injury sustain to the development of the disease? In my opinion, it is not enough to find the two isolated facts of an injury and some time in the future, it may be one, two, three, or more, years, find a sarcoma developing at the seat of a remembered blow or other injury. We must find a disturbance in the normal physiological resistances, manifested by local symptoms which bear a definite and continuous relation to the injury; otherwise we must assume the long-past injury and the newly-developed tumor as being coincident. If it could be shown that sarcoma was, as a rule, due to injury, or if it was true that injuries were frequently followed by sarcoma, then it could be said that when a sarcoma developed, therefore an injury had been received; or if an injury had been received, therefore it is to be assumed that a sarcoma will probably follow, the relation would be clear. But, as a matter of fact, sarcoma frequently develops without any history of trauma; on the other hand, a great number of all kinds of injuries occur without producing malignant disease of any kind; therefore the mere fact of a previous injury and the development of sarcoma establishes nothing, unless a direct relation can be established between the two. For instance: a fracture of a bone happens, union takes place, the callus is removed, the bones become strong, and the physiological resistance is apparently restored, and no inconvenience is felt; afterwards, from one to five years later, a sarcoma appears in the seat of the old fracture. To assume that the fracture was the trauma sufficient to develop the disease is, to my mind, untenable. If, on the other hand, the fracture is followed during any period of the formation of new embryonic elements incident to repair, or before the excessive nutritive processes have come to an end and the normal physiological balance has been restored, the appearance of a sarcomatous growth may reasonably be assumed to have its origin in the cells which were apparently intended to repair only, or in the tissues which have not yet reached a normal physiological type. When this condition is definitely reached, it may be difficult to determine; but it seems reasonable to assume that it would be reached certainly in a year. If during the year following the injury there are no evidences of morbid processes taking place at the seat of injury, it is, I believe, safe to say that no malignant disease will arise from the injury. It may be assumed, however, that a point of least resistance may be formed, which will at an indefinite period in the future become the focus of a morbid growth; but if this is true, can it be said that a patient has ever definitely and safely recovered from an injury? or must it be held that an injury is a constant menace to the individual during the remainder of his life? I cannot believe that this is the teachings of either pathology or practical experience.

The appearance of malignant growths in scar tissue involves other propositions. According to Thoma, "Investigations into the etiology of cancer shows beyond a doubt that there is a predisposition to cancer formation which increases with age. This probably plays the principal part in the etiology of cancer. The hereditary nature of such a predisposition would explain the fact that many tumors frequently reappear in the same family." The existence of a scar may determine the location of the cancer in the presence of the predisposition, but not cause the growth. Another factor should be taken into consideration in this connection, viz.: scar tissue is liable to long and repeated irritation, and, having less physio-

logical resistance than normal tissue, would more strongly invite the location of the morbid growth and determine the development of a cancer when the predisposition was so slight as to otherwise pass. The scar factor would be more influential in this direction if future investigations should show that the cocidia, like bodies found in carcinoma, are really parasitic organisms and cause cancer.

Thoma states that "no one has yet succeeded in producing cancer or other tumors experimentally by the use of trauma, toxic or infective agents, and innumerable injuries in the human body, including such as have suppurated for a long time, heal without disturbance. Among the relatively few cases, however, in which wounds and scars gave origin to tumor formations, there is quite a number where the injury healed up and only gave rise to formations of a tumor in the scar after many years had elapsed." To my mind, this evidence is strongly in support of the hypothesis that the scar serves as the means of locating the tumor, having the so-called predisposition as the underlying basis.

J. Bland Sutton, on the closing page of his work on tumors, says: "I have not deemed it necessary to discuss injury (trauma) as a cause of tumors. Conheim has ably disapproved this in the famous lecture on tumors."

From a clinical standpoint, there is much evidence that injuries serve to some extent as exciting causes of cancer; most writers on surgery hold to this view, but the exact relations are not very clearly stated. Ericksen states: "A blow or other injury of a part often appears to be the direct determining cause of the development of a primary cancer. Cancer of the breast is commonly attributed by the sufferer to the infliction of an injury." It is not quite clear whether this is Dr. Ericksen's unqualified opinion or the interpreted views of patients; however, he reaches this very closely when he says that "it is, however, certain that direct external violence, and more especially long-continued irritation of a part, often stands in some important relation to the development of the disease."

Senn, who is a believer in Conheim's theory of a pre-existing tumor matrix of embryonic cells, is emphatic in his acceptance of trauma as an exciting cause in the development of tumor, particularly sarcoma. In the presence of a matrix of embryonic cells, a trauma may excite a development in these cells which may prove to be a sarcoma. As to the time after the trauma when the sarcoma may begin to grow, we have only the general proposition to guide us that it may occur previous to the restoration of the normal physiological resistance in the part; *i. e.*, at any time while the cells retain their embryonic type. This, I believe, is true; but is it possible to fix with any degree of certainty the time when the cells have reached the normal physiological type of resistance? If we are to be influenced by clinical experience alone, we may say that in certain cases that the time never comes, especially in cases where a malignant tumor appears at the point where a former injury has been received. Apparently, the only guide we can safely follow is the evidence that a perfect histological and physiological restoration of the injured parts has been reached. If after this time a carcinoma or sarcoma develops, we must look for some other exciting influence.

In the March number of the *Annals of Surgery* there is a very inter-

esting article from Dr. Coley, of New York, on this subject. Dr. Coley's large experience and abundant observations on malignant disease entitles his opinions to great weight. His paper opens up very important medico-legal relations of the subject, and leads to the forming of professional opinion as to the possibilities which may follow a trauma. Coley, out of a total number of one hundred and seventy cases of sarcoma, found forty-six, or twenty-seven per cent., to be connected with trauma. An examination of the forty-six cases shows that sixteen of these cases did not show evidence of a tumor for a year or more after the injury. The fact that so long a period elapsed between the injury and the appearance of the growth, would at least throw a reasonable doubt upon the relation of the injury and the disease. If the sixteen cases may properly be eliminated from Dr. Coley's list, we shall have thirty cases in one hundred and seventy due directly or indirectly to trauma, or about eighteen per cent.

Lowenthal, who has made the most systematic study of this subject, collected three hundred and sixteen cases of sarcoma in medical literature giving a previous history of trauma. The interval between the injury and the appearance of the growth is not stated, and we are in the dark in relation to this very important fact. Lowenthal, however, states "that the trauma in itself does not furnish the real cause for the formation of a tumor is apparent from the fact that thousands of traumatisms are constantly occurring and but few tumors develop." Wolff's statistics of twenty per cent. of sarcoma and twelve per cent. carcinoma giving a history of trauma are defective for the same reason—that no mention is made as to the relation of time.

Harrison Cripps, of London, states that not more than seven or eight per cent. of sarcoma would give a history of injury; and Cripps is a believer in trauma as a factor in developing sarcoma.

The foregoing appears to be a fair statement of the various opinions held as to the influence of injury in producing malignant disease. My own experience accords with the majority in relation to this subject, although my observations confine the influence of trauma in developing sarcoma to bones. In a period of fifteen years I have treated several thousands of injuries of various kinds without seeing one sarcoma or carcinoma develop in consequence, except in bone; and in two cases only have I seen sarcoma appear in this tissue. This observation, limited as it is, convinces me that the proliferation of cells incident to repair may take on the peculiar features of growth which lead to sarcomative formation.

In the present state of knowledge of the etiology of malignant growths, it seems fair to assume that growths of epithelial origin as carcinomas, whatever the underlying cause may in the future be found to be, are greatly influenced in their growth by causes which disturb local nutrition or favor the proliferation of epithelial cells. This proposition finds support in the fact that certain glands and organs so situated as to function and position as to be particularly exposed to frequent or continuous trauma or irritation, or toxic influences, are especially predisposed to become the seat of carcinoma; but it is a matter of serious doubt if a single application of a traumatic influence ever is sufficient to cause a cancer, and I believe the question may safely be answered in the negative.

In relation to sarcoma, the clinical and pathological evidence is differ-

ent. Sarcoma, as a connective tissue-cell growth, may be said to have its origin in any influence which excites a proliferation of connective tissue-cells. This influence may be due to repeated irritation or to a single trauma, as a blow applied to soft tissues or to a fracture of bone. As a result of such trauma, embryonic cells may develop and assume the particular manner of growth characteristic of sarcoma, in the presence of a predisposition. But it must be presumed that the local disturbance has continued in operation from the time of the trauma to the appearance of growth.

It is not quite safe to draw an analogy between cancerous or sarcomatous new formations and tubercle. In tubercle we have a well-recognized micro-organism which seeks an especially-favorable focus for development.

A point of lessened resistance may be established by a slight trauma, as an injury to a bone or a sprain of a joint, which may prove sufficient until the normal physiological nutritive balance is restored, after which the *locus resistientia minoris* disappears or ceases to exist. If in the future it should be discovered that a special micro-organism or parasite is the real cause of malignant growths, then the evidence will be different; but even then it will be necessary, in order to give definiteness to medical opinion, to fix some relation between the trauma and the appearance of the growth other than the two isolated facts; and it seems possible to give a scientific basis for our opinion, by taking into consideration the questions of a physiological balance in nutrition and physiological types of resistance.

Indian Territory Medical Association.—The semi-annual meeting will be held at Wagoner, June 1, 1898. Following is the program:

1. Typhoid Fever, Dr. M. F. Williams, Muskogee, I. T.; 2. Most Modern Treatment of Organic Heart Diseases, Dr. R. I. Bond, Hartshorne, I. T.; 3. Blood Poisoning—Its Results and Treatment, Dr. J. G. Rucker, Claremore, I. T.; 4. The Significance of Albuminuria, Dr. G. A. McBride, Fort Gibson, I. T.; 5. Malarial Hæmaturia, Dr. W. T. Tilly, Pryor Creek, I. T.; 6. Typhoid Fever, Dr. J. W. Hensley, Wagoner, I. T.; 7. Diagnosis of Presentation by External Means, Dr. J. S. Fulton, Atoka, I. T.; 8. Treatment of Cystitis in the Female, Dr. St. Cloud Cooper, Ft. Smith, Ark.; 9. Vomiting of Pregnancy, Dr. L. D. Crawford, Vinita, I. T.; 10. The Present Status of Symphyseotomy, Dr. J. L. Davis, Muskogee, I. T.; 11. Preparatory Treatment of Obstetrical Patients, Dr. G. W. West, Eufaula, I. T.; 12. The Effect of Incomplete Coition, Dr. W. B. Pigg, South McAlester, I. T.; 13. Placenta Previa, Dr. O. Bagby, Vinita, I. T.; 14. Carbuncle, Dr. C. A. Shaw, South McAlester, I. T.; 15. Fractures Involving Elbow, Dr. J. L. Blakemore, Muskogee, I. T.; 16. Hernia, Dr. J. B. Roleter, Oklahoma City, O. T.; 17. Fractures, J. C. Robinson, McAlester, I. T.; 18. Intestinal Surgery, Dr. F. B. Fite, Muskogee, I. T.; 19. Castration of Criminals, Dr. I. P. Gunby, Sherman, Texas; 20. Dislocations, Dr. E. Y. Bass, Talala, I. T.; 21. Why Trephine? Dr. Fred. S. Clinton, Red Fork, I. T.

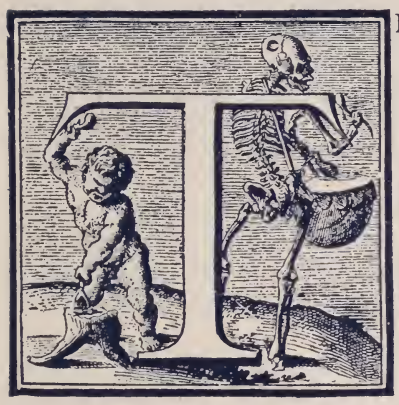
The June meeting will be of unusual importance, and every member, and every regular physician in the Territory, is requested to attend.

E. N. ALLEN, M. D., President.

LEROY LONG, M. D., Secretary.

PANCREATIC CYSTS.

By Dr. D. C. Brockman, Ottumwa, Iowa.



THE purpose of this paper is two-fold: first, to put on record two unreported cases of this comparatively rare condition that have come under my notice; and secon d to call the attention of the members of this society to what appears to me to be the predominating cause of its occurrence, *i. e.*, the lodgment of a gall stone in the common duct.

Senn has clearly pointed out, as a result of a most elaborate laboratory experimental study of the subject, that complete permanent occlusion of the pancreatic duct is invariably followed by atrophy of the gland and gradual death of the animal from inanition, while a partial closure results in the formation of a retention cyst; hence, the cause of pancreatic cysts must be looked for in some partial obstruction to the outflow of the fluid.

The books mention as causes of the condition: cancer of the head of the pancreas, or along the duct, or in the common duct near the bowel; or in some adjacent tissue where pressure will be brought to bear on the pancreatic duct by lodgment of calculus on the pancreatic duct; trauma, or other condition that will cause obstruction, more or less complete, to the duct; but say little or nothing of gall stones as a cause.

Now, if we will recall the anatomy of the bile apparatus, we will readily see that a stone, if lodged anywhere in the common duct, will most likely stop at the opening of the pancreatic duct, as at this point it has most room, and would allow bile to flow past it while it would almost completely block the flow of pancreatic fluid. If the stone stays any length of time at this point it will cause ulceration, which in time cicatrizes; and here, as elsewhere, cicatricial tissue contracts progressively till it causes so much stenosis that a retention cyst results.

The diagnosis of pancreatic cyst is made largely by exclusion. A cystic tumor of the left hypochondrium, not an incysted ascites or of renal origin, is probably a cyst of the pancreas, especially if such a tumor has been preceded by attacks of bilious colic. The prominent symptoms are dull, heavy, tearing pain in region of pancreas, accompanied by tenderness, followed in a short time by enlargement, which can soon be defined as a tense rotund cyst, usually too tender for thorough examination without an anæsthetic. The tumor is usually discovered to the left of the median line, but soon reaches and crosses it as it enlarges.

The "probable" diagnosis may be confirmed by aspiration and examining the fluid as to its ability to digest starch and emulsify fats; but, in my opinion, it is bad surgery to aspirate any intra-abdominal tumor that we are not positive is adherent to the abdominal walls. The reasons for

this opinion are too potent to need even mentioning. If for any reason an exploratory puncture is made, everything should be in readiness to follow it at once by free incision.

The treatment is very simple. Cut down over most prominent point to the cyst. If it is not adherent to the parietal walls, place two sutures in its walls so it can be controlled; pack gauze carefully about tumor to protect peritoneum, and incise the cyst freely, or tap it with an ovariotomy trocar; after emptying, draw out as much of the sac as possible, cut it off, and stitch balance to abdominal incision; pack cavity with gauze or drain with large, soft, rubber tube, and close balance of abdominal opening as usual. If the sac is adherent, it need only be opened and drained freely.

The after-treatment should be conducted on general principles, being careful not to allow the wound to heal on the surface till it has filled up below. The skin about the opening should be kept well coated with some heavy ointment to protect it from the irritating pancreatic juice that is poured out on the dressings.

It usually takes from six to eight weeks for the cavity to close, but in some cases they remain open much longer. During the past few years I have noticed several cases reported that have continued discharging for one to two years, showing the obstruction to be permanent. These persistent cases that refuse to close after years of observation, I think could be cured by anastomosing the discharging sinus with the duodenum, thereby diverting the fluid into its natural field. This operation has probably never been performed, but should be utilized on these unfortunates.

It has been my fortune (either good or bad) to have had the care of two of these tumors within the past five years, and as I can find reports of but few of such cases in the West, I will herewith append a brief history of them:

CASE 1.—D. F. B., æt. forty-one, was attacked January 12, 1893, with his old-time enemy, bilious colic. The usual remedies made the pain bearable, but it was several days before he could do without full doses of anodyne; after this for two weeks he complained bitterly of severe pain which extended across the left side. By the end of three weeks, from the undefined fullness of left hypochondrium a tumor could be outlined; it increased rapidly in size and the pain in intensity.

February 13th.—Recognizing the cystic character of the tumor, and with the advice of my associates in the case, we drew off with a small needle fourteen ounces of thin, turbid, pea-soup-looking fluid, which on examination proved to be pancreatic fluid. Next day, assisted by Drs. Williams and Lewis, I opened in the median line down to the tumor, which was, fortunately, firmly adherent to the abdominal walls, incised the sac and let out about five pints of the same kind of fluid; packed the cavity with gauze, closed up ends of incision, applied generous gauze and cotton dressing. For several days the discharge was very free, soaking everything and causing excoriation wherever it touched the unprotected skin. By March 28th the cavity had closed and drainage ceased.

The pain that had been so distressing ceased after opening the cyst; but within a week after drainage stopped he began complaining of a recurrence of pain, and within another week a noticeable fullness showed a recurrence of the trouble.

April 9th.—On the advice and with the assistance of Dr. N. Senn, we again opened and drained the sac, using this time large rubber tubes. For two or three weeks the drainage was quite free, but then gradually settled down to one and a half to two ounces per day; but our patient lost ground rapidly, notwithstanding he had an enormous appetite and was free from pain. He ran down from 175 to less than 100 pounds. Then he began to slowly improve, so that by May 27th he was able to go to his old home in southern Illinois.

During the next two years he occasionally wrote me that he had regained his weight; that he was still wearing the tube, and discharge was about as when he left.

At the April meeting of this society, 1895, at St. Louis, I had him come and see me. Found him in good general health; still wearing a large tube, with no evidence of any trouble except a sinus irritated by tube. I replaced the tube with a very small soft one, which I advised him to abandon in two weeks, assuring him that the wound would heal if the tube was left out.

June 25th.—He was greatly alarmed by finding, on arriving in the morning, that the supper of the previous night was in the dressing of wound. He made a hasty trip to Ottumwa to see me. Found dressings soaked with bile-stained food. The sinus contained a large hard tube which had eroded the duodenum near the opening of bile duct. Had him taken to hospital, removed the tube, applied gauze and cotton pad, ordered rectal nutrition, and nothing by stomach except sterilized water; most of the water was discharged promptly on dressings for the first few days. In ten days all discharge ceased and he returned to ordinary diet.

During May, 1896, he complained of discomfort about site of operation, with some fullness. June 6th I aspirated twelve ounces of bile-stained fluid from superficial cyst, going through the old cicatrix. A small amount of like fluid escaped at intervals till fall, when it closed up, and he has been as well since as ever.

I am of the opinion that his case would have been cured two years earlier by proper care in removing tube as the cavity became obliterated.

CASE 2.—December 24, 1897, was called to Williamsburgh by Dr. Moon to see Mrs. T., æt. forty-four, with following history: The patient is a large fat woman, weighing about 250 pounds. December 14th, ten days before, had been confined by an easy labor. For four or five weeks before labor she had severe pains in left side under ribs, and for two weeks had daily chills, supposed by patient to be due to pain.

After confinement doctor discovered a large, hard tumor about the size of pregnant uterus at term, in left hypochondrium, very tender. After the exhibition of large doses of saline she began the next day to pass an enormous amount of fecal matter of very bad odor. Within three days she passed two or three gallons of hard fecal lumps, which produced reduction in size of tumor. From time of her confinement till I saw her she had constant temperature of from 100° to 103°.

Ten days after confinement I found her with very weak pulse of 145; temperature, 103°; surface clammy and dusky; mild delirium; a typical picture of sepsis.

Tumor extending from ribs to crest of ilium across four inches, past

median line; very hard, too tender for more than gentle pulsation. Profuse, foul-smelling discharge from uterus, which organ was very much relaxed and filled with stinking clots.

Dr. Moon had removed several ounces of such clots in the morning. We again cleaned out two or three ounces of the most offensive stuff, irrigated and packed uterus with iodoform gauze; advised continuation of strychnia, quinine and stimulants she had been taking, with forced feeding, and daily irrigation and repacking uterus.

I believed she was suffering from malignant disease of pancreas, with sepsis from uterine inertia—that allowed clots to decompose.

Prognosis in accord with diagnosis.

January 12th.—Was recalled. Patient's general condition much the same, only uterus was smaller and firmer; no odor nor clots. Tumor larger, more painful and plainly fluctuating. Made free incision in left loin to sac, the walls of which were stitched to abdominal wall and incised, evacuating twelve to fifteen pounds dirty brown, purulent, bad-smelling matter, mixed with a large amount of necrotic tissue. The large cavity was hastily wiped out, packed with gauze, and patient returned to bed in bad condition.

Part of gauze was removed in two days, balance in four, and cavity repacked; temperature reduced, appetite returned, and general condition improved except decline in weight. In less than three weeks patient was able to sit up several hours a day.

February 5th.—Was again recalled on account of swelling in right side. Found fluctuating tumor below liver, to right of center; very tender. Wound from former operation closed except small sinus two inches deep. Patient has lost weight very rapidly since last operation—fully 100 pounds in less than four weeks, although appetite has been fairly good; skin hangs in folds; pulse 160 and very weak; mind dull and wandering.

Incised cyst and drained about a quart of what appeared to be acetic fluid in a cavity bounded by liver and peritoneum, including gall bladder. Patient's condition too grave to allow extensive exploration. She sank gradually and died three days after last operation.

Autopsy next day. Found small sinus from first operation leading down to pancreatic region, but no pancreatic tissue existed. Several small stones in common duct and great number in gall bladder. Cavity opened at last operation: encysted peritonitis, probably due to cholocystitis.

At this time we learned that our patient had been subject for years to cramp colic in right side—bilious colic!

In looking back over the case it is evident we originally had a simple pancreatic cyst, due to gall stones blocking the common duct above and a pregnant uterus below; between these a large fecal accumulation occurred, from which the adjacent cyst became infected, and we had the very rare occurrence of a suppurating cyst of the pancreas. The pancreas was entirely destroyed by septic necrosis, and our patient died from inanition, as must always occur in absence of the pancreas.

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By Dr. Warren B. Outten, of Saint Louis.

[CONTINUED FROM THE APRIL ISSUE.]

CHAPTER III.

The Varied Play of Will Upon the Human Face.——The Sweetest Element of Beauty, the Portal of the Soul, the Eye.——The Brain's Wonder, the Jewel of Language, the Soul's Expressive Organ, the Tongue.——Concerning the Oracle, the Mouth.——The Brain's Acute Attendant, the Organ of Time, the Silent Conch, the Ear.——Concerning the Harmonizing Feature of the Face, Supporter of the Dome of Thought, the Nose.

AYE, forsooth, it hath ever seemed to me that blind resolve is close akin to impulse, if not impulse itself; while resolve, based upon thoughtful, reasonable motive, is but another name for creative success. For failure certainly is rare; time and patience supported by this form of resolution usually bringing the best and fullest success.

Thoughtful, intelligent resolution, along with high motive, appeared to move Theodorus. Yea, his influence upon those with whom he came in contact was ever marked; for he was ever agreeable, but never familiar; generous to a fault, but, well considered action, courted no vain or puerile purpose. His chief object—which he pursued with determination—was never forgotten; and this was constantly impressed upon every member of his Cohort. Aye, his integrity and example were a great power in his character as a man of purpose. In addition to this, his appreciation of the worthy qualities in man, and his capacity for development, were, indeed, great. In my functions as scribe, I had been thoroughly instructed by Theodorus; and my duties, as time developed, I discovered were not always easy. I became, as a necessity, a reader of faces; and I believe that I evinced more than ordinary ability at times. Yet, time and time again, I made but woeful failure. Nay, once, in petty vanity, in the presence of Theodorus, I did boast of my ability as a face-reader; when Theodorus replied: "Sir, face-reading is like all things connected with the brain. It presents easy elements, only to be met with the most difficult in life. Yea, too much confidence in this leads but to deception; for the very wonder of a brain, soul, or mind teems with elements as varied as life. 'Tis too broad for the comprehension of one mind. Nay, if thou canst not read a face at first sight, thou canst not read it with certainty afterwards; for new influences and impressions set speculation aglow. Man's intuition often fades away the very instant a new attempt is made to use it. Nay, I do but believe you may broadly read; but a face's subtlety is beyond thy ken. Yea, let but suspicion, thought of danger, or the instinct of self-protection but assert itself to the mind, the will makes that face, if it hath power enough, a living hieroglyphic, which a lifetime cannot decipher. Contact, confidence, love, mental relaxation—another name for mental weakness—may render a face more or less legible; but

even the broadest experience renders the reading of a face not easy, but notwithstanding all, full of inconsistencies, which render impossible any approach toward effectual regularity. Aye, too, the mind of the man who reads physiognomy is not always of uniform power and strength; hence, varied periods of poor reading is manifest. Perfect reading of a face has never yet been reached; for intuition, not science, yields the best results."

Para Blar, having heard this conversation, had said to Theodorus: "Nay, forsooth, in the solution of this question, is the general study of expression more than the broad grouping or reading of the entire face? For a bony frame may tell of defects which the attempted reading of the countenance cannot tell, and, in their interpretations, indicate causes determining the actions of the mind more powerful than those that could be broadly predicated by the study of mobile skin and the acting of muscles." To which Theodorus replied that "the face was a theme worthy of discussion, but, after all, one from which would come more of pleasure than instruction; whence he did but think that, if the Cohort would prepare themselves individually for such discussion, certain profit would accrue to all; that he trusted they would study, just as they saw fit; and that he hoped the discussion would partake of the individual thoughts of each and every one." Thus, then, it was that this discussion came about; and what follows is but its poor transcription.

THEODORUS.—And now, sirs, with your consent, we will talk of the face and its belongings. Nay, there may come comment and dispute when I say that as the will acts, so acts the face. Indeed it is but a truth that our faces are ever, at all time that life wells and flows, controlled by that wondrous and subtle part of the mind called "the will." Nay, canst thou not note upon the human face, e'en in death, the last impress of a will's force, as truly put there as if in stone? But, beyond that, thou cans't not read the true character of the dead. Nay, canst thou not read upon the face of the mad-man his will's savaged control? And, canst thou not read the influence of love, passion, hope, joy, dread, and horror, as depicted by the will's force upon a face? The will is the empowered part of the mind. And, to me, it seems the truest manifestation of life; that is—life, as such, in man; for it is will, in my opinion, that makes soul or mind evident. Yea, without will, it doth seem to me that a soul or a mind must be as silent and unresponsive as a rock. Nay, then, a will can manifest itself in millions upon millions of ways upon this human face divine. Yea, then, whence comes he who can, forsooth, interpret this millions' ways? Hence, how utterly impotent to try to read the soul upon the face. Yea, such as we need for self-protection, not only to ourselves, but to others, seems to be shown. Aye, wonders have been accomplished; but still, how little hath been shown! Harmony of head and face do but vaguely show the general form of skull and features which have been upon this or that worthy man, and upon this or that race. Yes, we may read it broadly; but deeply only by circumstances which are ruled by an intangible force which we cannot grasp. Indeed, it is a long, tortuous and varied course, before we can ultimately effect a true interpretation of the marvelous elements of a soul's expression. We may, indeed, interpret marked and pronounced points; but the subtle are beyond our ken. Thus said, I will speak my thoughts, which I give more upon the pleasant side of this

study, than upon the deep and hidden phases of that wondrous part of man.

The human face is man's God-endowed teacher! It is the first, most complete, and only tutor of the sucking babe; its best and constant guide to broader knowledge. It teaches the new-born its first lesson of the external world. It teaches what books and all other sources of knowledge connot teach—the connection between the varied soulful expressions of words and acts. I opine that a faceless creature must be not only brainless, but as well soulless. Nay, I doubt whether life could so exist; but even so, still am I more than sure that it would be conceptionless, uninfluenced by the wondrous immaterial, yet forceful, reality of soul with life. And now, lo! and behold! the face is the mirror which manifests the con-

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nection of the material with the immaterial. It reflects plainly the most perfect, prominent, and wondrous part of man—the workings of that marvelous and inconceivable force which we call "soul" or "mind." Aye, it discovers to the child the reality of life. Momentarily, indeed, but daily and constantly, it gives him the only true value of love, passion, hope, joy, dread, fear, and horror. It is the expressive, the common frame of the five senses of man, making the face a reflected, speaking, material soul, a moving picture of thought and sentiment and passion, giving the purest and most perfect representation of what we call "the sublime," "the beautiful," "the grand," and "the moral." Likewise, does it reflect the dark and intense elements of hate, malevolence, depravity, and utter ignobility.

Aye, truly, the face is the only part of the human which can really interpret and make manifest the most important and potent of life's actions as they exist. Yea, truly, it is generally the interpreter of a soul's present state; and, most often, carries upon it the stamp of a mind's burden and balance. Just as truly does it reflect the character of the individual, while bearing upon it also the impress of heredity. It would be rash to think otherwise. What could all the play of words represented in all the actions of humanity denote, if a face had not taught their living warmth, force, and expression? Aye, it requires no vain stretch of the imagination, nor does it need the wisdom of a learned philosopher, to believe that love would, indeed, be but an unmeaning stream of empty words if the face had not lent its indescribable charm toward the expression of that God-given feeling. Sentiments, passions, meaningless when untaught by a face! The mind a cold and but partially-interpretable force, robbed of its glowing vigor of materiality and immateriality. Yea, it is within the strictest bounds of sense and reason to assert that the face is the most perfect, complete, and effective unison of the material with the immaterial. In this life it is the only medium given us by God for the soul's most perfect and broad picturing of its forceful immateriality. The power to man has never been given to see and know the soul; to determine of what it is made; or to identify the organ in which it resides. One might presume, of course, the brain; but perhaps, rather, God willing, in a union of all parts. Aye, we are thankful that it is so; that oft we can see its pictured wonders, its evanescent self, upon the human face divine. Yea, doubt it not, for it is God's truth, that the face is the nearest approach ever vouchsafed to man toward solving the riddle of the human soul. Again, man's face was made, not only to warn, guide, and protect himself, but, as well, to warn, guide, and protect others; and there can be no doubt that in the first age of his stay on earth, e'en as now, it was his most potent weapon of defense. All things considered, it seems to me that the true and complete interpretation of the face has not as yet been given to man. And strange, truly strange! for most oft it seems that women, children, and fools read it surer and purer than the most learned men. In the reading of a face, intuition very far, indeed, surpasses science. Hence, as there is at present no way of teaching intuition, and until such way be found, the perfect reading of a face is impossible. For, after years of study, the conclusion has been reached that it is only soul that can read soul, and even this a possibility only under unknown conditions.

Again, the crowning wonder of the face is the eye. It is the brightest of all bright things that our Maker has given us. It seems nearer to the soul, and is at all times the soul's best portal, and, above all, its broadest and most perfect tutor. The eye speaks every passion and every language. It makes our seeing mind more perfect, and is that mind's best witness. The soul is the body's master, the eye its surest aid.

PARA BLAR.—Worthy Theodorus, right soothingly and pleasantly have you, indeed, enhanced my respect for the face and the eye. Yet, with truth all around us, we do oft fail to recognize its virtue. Thus we have old but true sayings which are a study in themselves; for, forsooth, he who first said "that the eye believes itself, the ear other people," hit the truth; as the eye plainly finds out more truth than do the two ears,

And then again, which is a matter of common observation, and should, therefore, be no wonder, that "the use of the eye, over and above the ear, is so much greater; since the eye oftimes serves for ears to the deaf." Still I do wonder, and am free to confess it, at confusion in the vagaries, even, of sight; for it is said that "one may have good eyes and see nothing, for the eye is blind if the mind is absent."

THEODORUS.—Yea, you have aroused the thought; for these old sayings are the best truths, and are but gleanings of the sense of ages. "Out of sight, out of mind," is an old saying, but it is equally as true as what you have just averred, "out of mind, out of sight;" for, although the eye is usually the mind's truest witness, it is at times its falsest one. For the mind governs the eye; and if the mind errs, it may have a sensation of seeing, although there is nothing to see. For it is a truth, that we can see with the mind's eye; although the real eye be blind. Such sight is but the echo of memory in the brain hallucination.

TES AURE.—Yea, it is no quaint marvel that it is so: that our wonders become stale from too much living with them. But heavens be thanked! our thought renews and refreshes them. I have heard that truth, after all, is the eye of all ages; and learning the eye of the mind. To me there is much that is strange about this wondrous, lustrous orb. For it is said, "the eye that sees all things else, sees not itself." And just as strongly is it averred that "the eye is never satisfied in seeing." Aye, it is a most perfect truth that our sight is the great feeder of our souls, and that the eye, as we know, is the most tireless of the instruments of the body. It is constantly used when all others are quiet. It, happily, gives zest to the enjoyment of all other senses. Its use determines distance, and discovers color, form, and almost, like thought, reaches many millions of miles in an instant. It alone gives us a conception of infinity.

HEINE LANIUS.—That's all well said. But our love of sight and our appreciation of it is shown by that old saying, that "the one-eyed is king in the land of the blind; for, in that land, a pebble and a diamond are alike." To the blind, space has bounds. Thus the Greeks say, "a blind man, leaning against a wall, exclaimed, 'this is the boundary of the world!'" For, where we cannot see space, we know not what it is; since imagination is the confused and imperfect eye of the blind.,

THEODORUS.—Well said! These are well-put thoughts. For, indeed, it is truth itself, that the eye is the great forceful, though silent, organ of expression, from whose rounded orb radiate the brightest flashes of the soul. Its size, form, position, and color, all make it the most brilliant, yet sweetest, exponent of beauty. We speak of "the eloquent eye," "the beautiful eye," "the stupid," "ugly," and "mean eye." It is the most intense portrayer and gleaner of all that lives in thought. Its brightness dims the diamond; its beauty shames the rose; its power—who can measure? Nay, in itself it is the grandest, lovliest, and most wonderful mechanism created by God. Man's greatest friend at times, but his destroyer: for, in love, as in every battle, the eye is first subdued.

THEO CELSUS.—Perdie! worthy friends! It may be that one who talks to himself talks to a fool; hence, I fain would talk to you and thus remain wise. Proverbs and poverty were my tutors; and right good they are when one has no better, for proverbs, "the wisdom of many, the wit of

one," are the sage of the untutored poor· They wax strong with age; but never die. All the world may lie; but a proverb, never. It is hinted that it is for lack of thinking that most men are undone. If this be true, then, indeed, am I as crisp as an o'er-spitted fowl. For it is my fitful fate that I never stop thinking; hence I was never much at doing. Now, while I know that time and thinking even may lead fools to wisdom; yet, in my folly, my wisdom was too oft lost to myself and the world by being tinged with the rosy hues of luscious wine. Thus grew I, the bacchic wise man; only to become the flabbergasted fool. I fain would say but little; but 'twere better to say nothing than not enough. Yet, I know that a man of all tongue is but another startling name for fool. For, it is said, from hearing comes wisdom; from speaking, repentance; and I, for one, would rather trow than repent. But it doth seem to me that in your praise of the face and eye, you have done it with that wagging instrument—the tongue; and that inasmuch as it has done you such rare service, it is but just and meet to uphold it. Thus the French say, "a brain is worth little without a tongue;" and as the brain is the ruler of the eye, and the tongue makes the brain greater, then it must be a real Hercules among the senses. As a strippling was I told not to let my tongue run away with my brain; and, therefore, if this can be done, *ergo*, the tongue is stronger than the brain. Oh, it is an august thing—the tongue which slays more than the sword, and, at times, kills quicker; for, even tho' it be not steel, yet it cuts. Who in all the world will deny that it is a weapon of power and mortality? Aye, too, the tongue has weakness; for, it is said, one pair of ears would exhaust many scores of tongues. But, I never did believe Dominie, when he said to me, "a wise man has long ears, but a short tongue." If that were so, an ass would surely excel, even Solomon, in wisdom. Thank heaven, that wisdom is not all ears; for, possessing, as I do, only one good ear, I would then, indeed, be half-witted. Now, mark! The tongue is the brain's pleader, the stomach's guide, the eye's support and defender, the jewel of language, and the soul's expressive organ. View it alone, unmouthed, 'tis an ugly, uncomely, blatterless thing. But, Gods! it can well-up and overflow with the rarest of earthly sweets.

THEODORUS.—Yea, and spew out the vilest poison of earth, too; do more harm, and utter more sin, than Old Nick himself. A tongue of honey, but, still, a tongue of gall!

A honeyed tongue, a tongue of gall,
  Oft turns a tongue of rue;
Yea, tainted sweets, with bitterness,
  Can villain, vile, undo.

THEO CELSUS.—Aye, forsooth, it is but both saint and sinner. 'Tis the saints penitent's plaintive pleader; the vilest varlet's most trenchant weapon. 'Tis said that love rules his kingdom without a sword. But, not even a witling would think that he could rule it without a tongue; for this is that sweet, callow tyrant's keenest arrow. And, indeed, was not the tongue Old King Solomon's active, brawny, wiry giant? It is the wagging organ of the senses, the mind's slave, and without the voice a piece of flesh. It is a flexible trickster that holds not within himself

either sense of reason, passion or sentiment, philosophy or religion, yet teaches all in the strongest way. Doubt it not; for while neither beard nor tongue made Solomon wise, yet his tongue put wisdom into others. Here I hold my tongue; for enough has more virtue than gold, and makes man richer.

TES AURE.—'Tis well you stop; for eternal talkers hear a world of folly.

THEO CELSUS.—'Tis so; but it hath been said, "beware of a man that does not talk, and of a dog that does not bark," as they are full of speculation, both ways; for they are not as open as the face of a clock, but close as a coffin's lid, and behind them may be biting and painful fate.

HEINE LANIUS.—But 'Celsus, it doth appear as if that oracle, the mouth, had been neglected; for do not the mouth and voice bring great credit to the tongue?

THEODORUS.—Mouth, voice, and tongue make Theo. Celsus' tongue; he refers but to spoken language. Anon, 'tis a twice-told tale, when we say that the eye is the face's paragon, the heaven-lit orb of thought. But the mouth is all human! It is the face's ardent, tender-feeling feature. It pictures love's desires—its ravishing, luxurious sensuality. It is the oracle of the heart's temple. It is more animal than the eye. We but admire and worship beautiful eyes; their brightness and splendor suggest unknown, infinite realms—spiritual, not earthly. But, Mars! how all men love a beautiful woman's mouth! The mobile rosy lips that must be fed, and in ardor touched, enkindle desire that tints the very world with beauteous hues. Yea, the eye suggests soul, and raises man heavenward; but the mouth, in its full luscious warmth, right easily binds him to his mother-earth. The eyes, expression; the mouth, glowing passion! The voice is but an echo from the brain, a changeling of the tongue; while the jaws are the tongue's twin jailers.

PARA BLAR.—'Twere but just, since, as we have heard so much that is pleasing to the ear, that we pay homage for a time to that patient and silent feature; for it has not tongue to plead its cause, nor action to enforce

THEODORUS.—Well; so be it! for patience oft is silent appeal, or maybe, untalked argument. The ear has neither carriage, nor action; 'tis the slothful feature of the face. It never expresses itself, either in strong passion or sentiment; for though all the other features are, in excitement, acting, it, alone, remains unmoved. It may express itself, by color, in bashfulness, or sweet surprise; but its stolid body never moves. It is the brain's acute attendant, but never expression's subject; tho' 'tis the organ of time. 'Tis not a thing of beauty in itself; but beauty's face it ever makes more beautiful; e'en as love's dimple, or the tiny sable mole, make beautiful, from company they keep. The ear receives; it may deceive; but never tells nor gives. Yes, statute-like, it courts remembrance and respect.

THEO CELSUS.—Aye, the ear is a real miser; and, like a miser, gets all it can by seeming and addition. The ear is but a hypocrite: it never seems to hear; at least 'tis so in man. Upon an ass 'tis oft a tell-tale, and but wags responsive to food, and drink, and flies. Big fools have big ears, but bad hearing; for, if from hearing comes wisdom, then they must

hear but little, if at all. Again, 'tis said, that the ear is wise, for it hears much and says nothing; but, still, the ear is an organ of the understanding. Silence may be wisdom; but wisdom is nought, unless imparted. Silence, truly, is a breeder of speculation; and speculation is oft but a tricky rogue who courts impossibility.

THEODORUS.—Let us now conclude our discussion on the face, with the nose. The nose is Hygeia's gift to the face, the lung's gracious aid, the organ of smell, the mouth's protector, the tear's canal, the forehead's strongest support. Nay, and very true, it is, that the nose gives harmony to all the other features of the face; for it is sincerely honest; and a beautiful nose never bides upon an ugly face. Thus says Lavater, "yea, too, the nose is not ashamed of its birth-place;" but truly tells whether it came from the Emerald Isle, or from the streets of Jerusalem. While over one-half of itself is flexible, still it moves not; yet it may perfectly portray anguish, scorn, hatred or contempt; and bears, at times, the phase of passion. And, again, its expressive waves, its white wings, solemn, slow and portentous at the approach of death; and truthful speaks the spirit's flight, in quivering flutter. The nose, when rightly formed, is straight and well-proportioned, just as long as the forehead it supports, and, like an athlete, well-fettered and clean muscled. We read the nose, as the other features, by comparison and precedent; but cannot tell what's in the brain from the shape of this silent feature. But we know that harmony is the music of growth; hence an intelligent face, perforce, will have an intelligent nose. A capacious brain means a capacious skull; and the nose, being the support of the forepart of the skull, should be strong enough and comely.

THEO CELSUS.—Now, e'en whilst thou talked, Theodorus, it has occurred to me: the strange force of words! We all know that words mould wit; and if wit be but the power of seizing on some thought or fact, and by some sudden turn presenting it in aspects new and strange, then, by my troth, wit is nought else than a trickster of harmony. Nay, then, I do but argue straight; for, as thou hast just said, Theodorus, that the nose is the harmony of the face, now, hark you! falter not, but listen as I slowly state my point: The nose is the face's harmony. Now, tip-tilt this nose, and you have a pug-nose, and harmony has fled. Then do I argue that the nose is like wit; by tip-tilting, a sudden turn shows this nose under aspects new and strange. Now, I pray thee, let further test have course: Put a pug-nose on the face of fair Venus, and Cupid, when he saw her, would fall into convulsions. Nay, in my rashness, amidst his silent, time-touched pyramids, put but a pug-nose upon old Egypt's Sphinx—that somber, solemn, query of the ages—and the great desert would roll visorious, while the very pyramids would blush and hide their heads. Thus, the harmonies of centuries but tip-tilted and pugged, and Father Time would drop his scythe and hold his sides.

PARA BLAR.—Nay, then, if thy argument be true, an earthquake must be nature's wit; for it but tricked nature's harmony.

THEO CELSUS.—Aye, time and thought make all things meet; but still do I in honesty aver that wit, pug-nose, and earthquake, all disturb harmony. Sure as death, a pug-nose on beauty's face would be as an earthquake.

THEODORUS.—Yea, 'tis true, marked beauties and marked defects are

quickly seen upon a face. Yet, I do but think that our wish to read a countenance but speaks our fitful opinion of that capacity. Nay, when will consents, you may read much in a face; but where, indeed, it does not so consent, you can read but what the will allows read. Aye, experience may aid this reading; but if experience has courted thee not well, the will can make this face blank to thy reading. Yes, will can hide a soul, can hide a mind, can hide a soul's intent; and when will turns to impulse, the will's very self is not only shorn of power, but its mind cannot even explain this state. Blind function of a will may act eternally, when intention and protection fix the mind. The face, like the soul, is subtle, too; but it is the vivid part of life; for a face has given us joys and griefs more often than all other sources which well within this world. Here let us end! Thus far we have tried to study; and trust that we have studied well. The reasoning of the mind, God's greatest product, seems ever guided by heredity, by surroundings and occasion. But the innumerable phases of mind are as varied as the sands of the sea, and, like them, must remain uncounted. In the reading of a face, we trust that, at least, we may err on the side of charity; nor blindly read for ill or loveless thought.

Forsooth, as I now e'en do review this discussion, many things were but said which were pleasing. But, upon my conscience, I must think that the rarest readers of faces are those who study the least, in a scientific way. Nay, have not I, time and time again, visited some petty merchant, only to find wonders shown me in the reading of a face? Thus have I gone into a store, and one look from whose attendant showed me that I wanted something, only too soon to learn that he knew better what I wanted than even did I myself. The faintest quiver or movement, the slightest wink of the eye, or an unknown other something, did make him read my very thoughts, and sell what he pleased. Yes, in verity, the only perfect readers of face live in books; they do not bide on earth. Aye, marvels, too, in the shape of face-readers are in many directions wherein the field is limited; as, with gamesters, beggars, and others. But its broadest reading, wherein it might be imparted to all, is unknown.

Aye, by my troth, that's a thought well-sped, when 'tis said that the face is the world's great open book, the means which heaven yields to start all human knowledge. 'Tis doubly true that the face gives more knowledge in our wholesome life than any single source; for it is the start of intelligence, the purveyor of every expressful image. What, then, if a face be as deep as a soul, 'tis as true that it can be as plain as the sun. Aye, let it be the will's slave; for it yet remains more man's master than anything of mortal make. Old is the saying, "Many men, many minds." Yea, too, just as many faces. For it truly would be a sad, dry world were all the faces the same; and thus does faceful variety easily become heaven's generous gift, which makes this world delightful. To me it doth truly seem that the face is as a lottery wherein one is fated to meet many unlucky chances; for true it is we too oft take faces for what they ought to be, and not for what they are. Indeed, 'tis in a face where extremes most oft do meet. As the soul, so the face. A face without virtue is but the image of guile; for a face has never been created which was continuously

better than its soul. Anon, few people turn gray when they see an ugly face, but all people turn worshipers when they see beauty's face; for a heaven of gladsome comfort bides therein. Faces are measured by expression and not by inches, as the face is a space which carries the image of a universe in it. 'Tis the very pith of expression, that splendid varied sunlight of the soul, reflecting the product of countless ages—aye, the thoughts of the quick and the dead. Well, alack, why need I try to say anything new about the face, when all men before me have tried it, and millions failed. Aye, truly, the face admits no parallel, for it throttled comparison when man first began; and strangely true it is that the face provokes anything and everything but solution. Yea, the face is everything, and everything has a face. *Ergo*, who knows everything?

OSTEOMYELITIS.[1]

By B. F. Fortner, M. D.

IN BONE DISEASE, as in disease of the softer tissues and organs of the human body, much depends upon the social and moral plane upon which we live. "The soul that sinneth shall die," is an expression no less of physical than of moral truth. Man is, in a peculiar sense, a threefold being—physical, mental, and moral. By some mode and proportion of combination of these three primary elements we have the various manifestations of the *genus homo* — the Goliahs and Tom Thumbs, the philosopher and the plebeian, the Christian and the knave. Heredity is an open book of hideous truth. That the distorted, maimed, and repulsive beings seen on every hand is the expression of somebody's fracture of hygienic law, none of us doubt. So, we have syphilitic bones, and tuberculosis bones, and rachitic bones, and cancerous bones, and bones with pyæmic abscess; we have overfed bones and starved bones. Vital depression stands in the closest possible relation to all diseased bone, excepting, possibly, the malignant variety.

In my own cases of osteomyelitis, I have usually been able to discover the element of vital depression. As a familiar example, we have all observed the more frequent occurrence of dactylitis, whether tuberculous, syphilitic or traumatic, during the summer and autumn, when the vital powers are discounted by heat and malaria. Low vitality, whether hereditary or acquired, powerfully favors inflammatory bone disease. The anatomical and physiological structure of bone is such that its remotest and densest areas are a part of the general circulatory system, so that

[1] Read before the Indian Territory Medical Society.

materies morbi readily gains admission to its every part. Tubercle bacilli, streptococcus and staphylococcus glide easily through the Haversian arteries and canaliculæ to the bone-cells, surrounded by a capillary network in the lacunæ. The blood circulation of bone lacks nothing of completeness, however dense or however cancellous. This thought prepares our minds for understanding the process of metastasis of tubercle and cancer, and the lodgment of the pus-producing germs, as in the case of infantile pyæmic osteomyelitis. All of these morbific agents have their points of election. It may be stated, as a general rule, that they prefer the cancellous ends or regions of bones, joint cavities being usually affected by implication. At this juncture, however, I wish to exclude from further consideration, except by mere allusions, all forms of bone disease except that in which the bone proper and the medulla are primarily the seat of inflammation. I take it that osteomyelitis is either the result of trauma or the introduction to the circulation of some morbific agent, usually the streptococcus. When we remember, as we always should upon approaching a case of this disease, that tissues of persons vitally below par have correspondingly less resisting power; that in the bones of the weakling, whether by inheritance or acquisition, the disease germ finds its most convenient lodgment and makes its easiest conquest; that such a field is unfavorable for a hand-to-hand conflict between these vandals and the white blood corpuscles which keep eternal vigil at life's portal, we have a pointer as to constitutional treatment.

I desire to call special attention to the rapid and extensively destructive character of the disease. This, I apprehend, is not sufficiently understood, in part on account of the comparative infrequency of the malady in the rural districts. I might impress this more thoroughly by reciting synoptically the last three cases which I have seen; all three occurring within a few weeks of each other during the last summer season. I draw my conclusions from what appeared upon the operating table and from the statements of the physicians who had treated them. They were two boys, aged nine and twelve years, and one girl, about thirteen years old. In each of these cases the attack was sudden, with high temperature; and in case of the boys, swelling involved the knees, so that the diagnosis had been rheumatic synovitis—a fatal blunder. The younger boy came to me after six weeks, with two or three everted fistulous openings upon the anterior aspect of each leg. The medical attendant had expressed the opinion that a little bone scraping might be necessary, to be done under cocaine. When under chloroform, without any incision, the tibiæ were found to be loose in their soft environments and easily movable at their ends. The whole shafts were dead and detached at both ends. This had evidently been accomplished within a fortnight. The right knee-joint had been perforated from below, through the tibial epiphysial cartilage, and pus poured out of it. The right ankle-joint was in a like condition, but neither the left knee or ankle-joint were involved.

The other boy came under my observation ten days after the involvement of the right leg, and two weeks after that of the left knee. His right tibia was practically dead in its whole length and circumference, with slight swelling of the soft parts, and no opening anywhere. I expected some dead bone, but not a *whole tibia*, in a reasonably healthy

farmer boy, with no history of injury or hereditary taint. The upper end was detached, but the joint was not involved. A week later the joint became involved, and amputation through the condyles was done, with good result. He continued to have one or two degrees of fever for many weeks; due, probably, to the condition of the left knee, which continued swollen in spite of local and constitutional treatment. Frequent aspirations gave no pus, so that the joint was not opened. Gradually the lower end of the femur, for three inches, received an incrustation of bone, and the temperature and swelling subsided. Could we have had this patient present to-day, this knee might have given us a nice X-ray study.

The third case I operated upon a few days ago by the courtesy of Dr. Bristow. This girl had the high range of fever for a few weeks, when it gradually subsided. Dr. Bristow diagnosed the case properly, and made incisions, but this specimen of tibia, which fairly represents four legs of these three patients, is not a very satisfactory commentary upon that treatment in that particular case. Now, the deduction from these three cases is that the disease tends to a rapid and extensive destruction of any bone involved. Its effect is not caries, but necrosis. Of these three cases only one escaped with both legs. Of the six members, only one is left sound; and the disabled ones are either a remnant or a menace. You will observe that so much did these cases resemble rheumatic arthritis, that two were so diagnosed; yet, all occurred out of the season wherein we would expect to find rheumatism—a feature worth remembering.

It is, perhaps, germain to remark that in the surgery of suppurative bone disease, patients bear the knife better than under other circumstances. As an example: One of our boys was extremely feeble; temperature 102; pulse 140; and greatly emaciated. I am not accustomed to specialize in rapid surgery, but in this case rapidity was considered of the utmost importance. So the amputation was made in the lower third of the thigh at two strokes, bone sawed, arteries ligated, and stump dressed within a few moments. The temperature fell to one-fourth degree above normal, and the boy never missed a meal nor a nap, and the wound healed without redressing or a drop of pus. He fattened from the moment he opened his eyes from the chloroform.

In all operations for the removal of diseased bone, the greatest care should be exercised to preserve the periosteum. That it reproduces bone is no discarded fallacy. In the case from which our specimen was taken, already a rather firm shaft of adventitious bone has formed, and I think a useful leg will yet result.

I shall say little about diagnosis. The swelling and fever simulates—in case of involvement of the terminal ends of the bones of the arm, forearm, thigh, and leg—rheumatism; and in case of the tubular bones of the hand and feet, a tubercular or syphilitic dactylitis. Careful consideration of age, season, and personal history, will, I believe, usually lead to a correct conclusion. Rheumatism has its favorite seasons; rarely occurring in the warmer season *or in children*, who are, in contrast, the chief subjects of osteomyelitis. Osteomyelitis, like rheumatic synovitis, occurs suddenly, often with high fever; but the swelling of rheumatism is in the joint, whereas that of osteomyelitis has its stress *above* or *below* the joint, which latter is involved later, by implication. Infants are the subjects of pyæmic

joint disease, which may extend to the bone; but the process is usually reversed, the joint suffering secondarily. Syphilitic and tuberculous dactylitis often present a history of heredity, particularly the former. This is not true strictly of osteomyelitis.

These very considerations entering into the problem of diagnosis furnish the indication for treatment. If we speak of a case without joint complications, the treatment should be free, and early incision, with anodynes for pain, which is very distressing and debilitating, and good food. If a joint be involved, not communicating with any pus cavity, carbolic packings, fomentations or poultices, and the injection into the joint cavity of iodoform or other germicides. This failing, and the joint containing a large quantity of pus, as in the case of those joints presenting large areas of articular surface and ample synovial sac, free incisions with drainage should be resorted to *promptly*. Frequent aspiration should be practiced, so as to keep track of the progress of the disease.

In conclusion, I wish to emphasize the importance of early diagnosis, prompt, fearless surgery, and good feeding.

THORACOPAGUS.

By Wm. Standing, M. D., St. Louis.

Professor of Diseases of Children, St. Louis College of Physicians and Surgeons.

ON THE morning of April 9, 1898, about five o'clock, I was called in great haste to attend Mrs. D., of this city, who had been in labor all night and had in attendance a midwife. When I arrived at the house I found, on examination, that the head of a child had been born. The labor had been continuous since ten o'clock of the preceding night, and the lady was worn out and very sensitive to touch; consequently, I had to resort to the use of chloroform. Owing to the inability of the midwife to deliver the child, I suspected some complication, and thought possibly the cord might be wound round the neck, but on examination found there was no cord; on further examination, it appeared that the child was in somewhat of a twist. Later external and internal examination led me to believe it to be a twin pregnancy, and that the child was locked by the one still in utero. When uterine contractions would come on, the head would, with some difficulty, be forced forward only a mere trifle. After several attempts to deliver the child, I pressed the head down onto or against the perineum, and delivered the arms. The contractile powers of the uterus failed to expel, as before. I then resorted to the use of a long piece of cloth, wound from the back under the arms and brought forward to the front part of the chest. As the body of the child was very slippery, it was quite difficult to make

any traction with the hand without some such leverage. The face of the child was turned upwards toward the abdomen of the mother. The midwife took the ends of the cloth in her hands and gently pulled on them, while I engaged the buttocks with my right hand and succeeded in delivering the child, which was a girl; but, after the delivery, I found that it had an attachment which I could not plainly make out, as I did not suspect what followed was the feet of another child presenting. I had traction made upon the cloth by the midwife, and gradually pulled down the feet of the other one, when it came away, and found it was also a girl. The first child appeared to be about a pound heavier than the latter. Owing, perhaps, to the long delay in delivery, the parts were more or less

paralyzed, and no contractions came on after the delivery of the first child, thus delaying a more speedy delivery of the second. I found that I had a monstrosity—what is termed in the *Annals of Gynecology* by Herrgott and in a case reported and published in the "Cyclopedia of Diseases of Children" by Keating, of very similar character to the one herewith presented, a sternopagus. Other authorities have designated it as the thoracopagus.

So far as I have been able to learn, there had been no twins or cases of monstrosity reported in this family so far as they knew. From the mother's side I learned the following: She is thirty-seven years old, five feet three inches in height, weighs 130 pounds, of German parents, is well

developed, large pelvic cavity, has given birth to three girls and one boy in the past twelve years, the children averaging nine and one-half pounds in weight, all strong at birth; mother always healthy, carrying children as long as eleven months in some cases. There were eight children in her father's family, all long-lived.

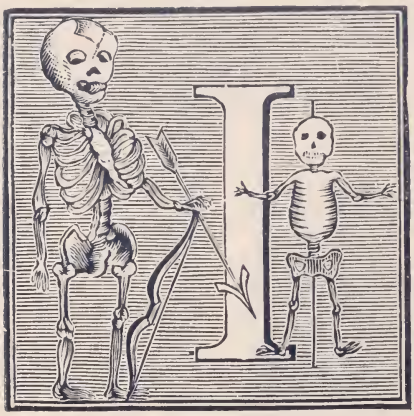
The father is thirty-eight years old, weighs 145 pounds, is five feet five inches in height, of southern parents, English descent. Children in the past generation all living to good age. Father claims he has been in poor health for most of his life, but his general appearance does not indicate such.

This monstrosity was within about two weeks of maturity. The general development, as regards all of the parts, is very perfect. The children have one common umbilical cord. I was told by the father that when the head of the first child was born the child made some noise, but the general appearance of the head and face indicated possible asphyxia.

I have made no *post-mortem* as yet, and can give no further history of the case at present. I wanted to have a *post-mortem* and general dissection, but as yet have not gained consent to have it done. The cuts here presented give a very good idea of the general appearance of this wonderful monstrosity.

EPITHELIOMA.

By A. H. OHMANN-DUMESNIL, of Saint Louis.



IF THERE is one word which will strike terror to the heart, it is cancer. It carries with it the idea of destruction, untold suffering, and the hopelessness of cure. Its destructive tendency, the ravages it produces, and the impotency of medicine and surgery to cope with it in its advanced forms, have certainly justified these conclusions to a large extent. Unfortunately, but little that is positive is known in regard to malignant neoplasms. Various theories have been advanced, from that of Virchow and Cohnheim up to the latest and most modern, in which it is advanced that they are of parasitic nature, and can be transmitted from one individual to another by infection. Be this as it may, the fact still remains that therapeutic measures are still as impotent as they were years ago, and, as a natural result, they vary greatly in their natures. The variety of malignant neoplasms which is about to be considered is that which is looked upon as primarily, and yet is known as true cancer, and is really the type. It is amenable to proper treatment, when this is applied early and recurrence is not seen. And this is the great danger of all treatment in malignant processes. They will recur at the primary site involved, in some forms, and in others a metastasis takes place whereby some locality quite remote from the first will be the seat of the affection. But it is not proposed to enter into a discussion of malignant growths, however interesting that may be, but rather to consider the form of epithelioma—that attacking the skin. In view of this fact, whenever epithelioma is mentioned in the following pages it is to be understood that the cutaneous form is referred to, unless more specific qualifying phrases are employed.

Epithelioma is perhaps the most common neoplasm which affects the skin. It is not only the dermatologist who sees the cases so affected, but surgeons frequently observe it, and general practitioners also have a goodly share come under their observation. In general there are three forms most frequently seen—the superficial, the deep, and the papillary. The superficial form of epithelioma is one whose first manifestation is in the form of small papules or flat infiltrations, which are reddish, yellowish, or greyish in color. As these elicit very little or no pain, but a small degree of attention is paid to them. On the other hand, epithelioma may arise from a wart, a mole, a nevus, or from the orifice of a sebaceous gland. It may arise from secondary lesions of the skin, such as excoriations, fissures, etc.; and it frequently takes its origin from the base of a cutaneous horn which has been accidentally torn off from the skin. It is not unusual to see it originate from the scar of some other process, such as lupus, in which an

apparently cured case is followed by some malignant neoplasm, and often this is epithelioma.

Epithelioma is usually observed in those who are at or past the middle period of life. It is never observed in the young, and it would seem that it makes its appearance at that epoch when the tissues are beginning to degenerate, or have in large part lost their reparative power. This may further account, in part, for the fact that the disease is quite irregular in its course. It may be very slow and apparently quiescent for quite a long time. On the other hand, it may be rapid, and this implies, of course, a greater or less amount of destruction. But be it slow or rapid in its march, destruction is progressive unless it be arrested by radical measures. Yet there are cases recorded in which the termination of an epithelioma occurred in spontaneous healing. Of course, such results are very rare, and some doubt has been thrown upon the diagnosis in these rather unique cases. A rapidly-destructive process is much more likely to set in, and when once it commences it is most difficult to control. Even in apparently slow cases, destruction of a marked character will suddenly declare itself, and a most lamentable termination will be the outcome. In all cases there is one constant symptom in the form of a pain of a neuralgic character, characterized by exacerbations. It is most intense, and is described by patients as of a character radiating from the destructive lesion in various directions. It will be described as similar to lightning occurring in flashes, each one following a different course. The objective signs elicited by the pain amply testify to its excruciating character, and the slightest touch to the lesion will generally call it forth.

To describe epithelioma in general is a most difficult task. It does not possess such marked and unmistakable objective features that it could in every case be easily recognized. We have seen competent surgeons mistake a *noli me tangere*, or lupus of the ala of the nose, for an epithelioma, and prepare to operate, when such a measure was no by means indicated. The best guide in the formulation of the diagnosis is, perhaps, the history of the case from its inception. Next in value are to be considered the form, location, appearance of the destructive process and secretion, together with the subjective symptoms. The form of epithelioma is roundish, oval, linear, or irregular. It may occur as a single lesion, or there may be several. It is also known to occur in a disseminated form, although not frequently observed. One circumstance, in connection with the trouble is that it always forms an ulcer which, at times, assumes a more than ordinarily malignant form, constituting the so-called *rodent ulcer*, which will invade a large area. All ulcerating epitheliomata possess more or less indurated borders, which have a tendency to become undermined; or they may be perpendicular and infiltrated. The floor is irregular and covered with granulations which bleed at the slightest touch. There is a secretion of a viscid serum intermingled with blood and pus of an unhealthy character, very often of a greenish color. An almost invariable accompaniment of the process is a sickening fetid and offensive odor, which seems to require the strongest disinfectants to neutralize it successfully. If these characteristics be kept in mind, but little difficulty will be experienced in making a diagnosis. Of course, when an epithelioma is just beginning the strong odor will not be present, and instead of an ulcer a crust will be found.

But if this crust be removed it will be found to rest upon a purulent base, with large, unhealthy granulations which bleed easily and profusely. It is at this stage that the treatment of epithelioma offers the best chances of success, and no half-way measures should ever be adopted. An inefficient treatment seems to act in the way of a stimulant, and it simply has the effect of increasing the natural tendency of this neoplasm to spread and ulcerate more deeply. It is not unusual to see an irreparable injury and loss of tissue follow such a course; whereas, if the trouble had been left alone its destructive action would not have progressed so rapidly, nor been attended by so great a loss of tissue. If there is one disease more than another which demands thorough and correct treatment, it is, beyond all doubt, epithelioma; and, yet, care should be taken to avoid producing the terrible disfigurements which mark the trail of the itinerant "cancer doctor."

The parts which are most frequently the seat of the trouble are the head and face. The next in frequency are the neck and the penis. The scalp is not as frequently the seat of epithelioma as the lower eyelid and the upper lip. The forehead, the upper eyelid, the lower lip, and the temple, are not infrequently implicated. The nose is at times also attacked, the points of election being the dorsum and the alæ. When the temple is the starting point of the process, rodent ulcer develops and then spreads in all directions, invading the ear, scalp, face, and side of the neck. In connection with the face there are what are known as the "danger lines," which form a rectangle. Epithelioma is more apt to follow a mole, wart, nevus, or arise from the orifices of the sebaceous glands within these limits, than in any other locality. To determine this area it is only necessary to draw four lines in the following manner: One line is drawn horizontally through the middle of the forehead; another line is drawn parallel to this through the mento-labial furrow situate midway between the lower lip and the chin; two perpendicular lines are drawn, one on either side, directly in front of the ears. Within the space bounded by these four lines we have the territory most frequently invaded by epithelioma. In general terms, however, it may be stated that the disease may invade any portion of the integument, and that it is, at times, known to occur on the feet and the hands. However, about three-fourths of the cases of cancer of the skin are observed upon the face and head, which is no doubt due to the fact that these parts are more subject to local irritation.

Several varieties of epithelioma are recognized—the superficial, the deep, the papillary, and the sebaceous. In all, the destructive process may become quite deep and involve the subcutaneous structures, destroying the bone and often bringing on alarming hemorrhages through the destructive invasion of the coats of the arteries. A good example of the superficial form of epithelioma is shown in Figure 1. The patient was an old man, who could not remember how the trouble began. He did not remember whether it resulted from an excoriation due to scratching or a traumatism. As may be seen from the illustration, the lesion is not deep, is irregular in form and progressively destructive. That it bleeds easily is evidenced by the blood which may be seen running down the neck. This was occasioned by simply removing the dressing. The pain in this small ulcer was strange to the patient, in view of the apparent insignificance of

the lesion. So it is with every example of this variety of epithelioma. In many instances a crust forms, and this is never removed, as such a measure produces excruciating pain. The ulceration progresses under the crust until help is sought and operative or other measures applied. It is in this

FIG. 1. Superficial Epithelioma.

manner that the process becomes deep and destruction occurs. This form is the one which is frequently seen on the scalp, the neck, and the cheeks of old people, differing somewhat from that which occurs in those who are middle-aged, and which are more prone to take on an ulcerative form from

their very inception. When such an epithelioma has a tendency to spread, it does so rapidly, and involves rather a large area. In Figure 2 is given a picture of a rodent ulcer, which is not quite as extensive as some cases, simply because it was not given enough time to spread over a larger amount of surface. In the case which is depicted, the trouble began as a small

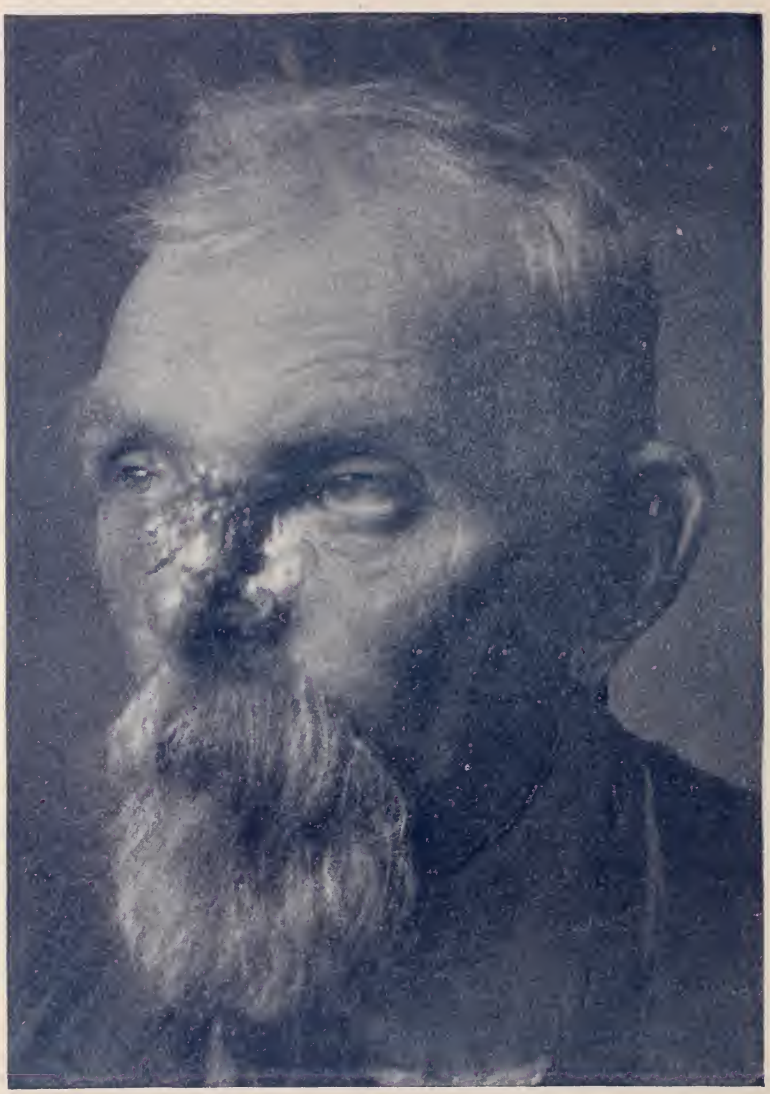


FIG. 2. Rodent Ulcer.

pustule, which was somewhat painful. This was "picked" by the patient, and a small "sore" developed. This would not heal in spite of all the remedies applied to it, but rather seemed to grow larger, but very slowly. This enlargement progressed and the pain grew more marked until the patient became thoroughly alarmed and sought the advice of physicians, who

seemed to afford him but very little relief. When he presented himself, his appearance was that shown in the figure. The nose was entirely involved, with exception of the tip, and granulating, fungoid masses showed themselves all over the lesion. Upon both sides of the nose there existed perforations, one of which is shown upon the left side in the picture. The right lower eyelid was being encroached upon, and the case, on the whole, presented a very uninviting appearance. The mucous lining of the nose was implicated by extension of the process, and the turbinates, as well as the vomer, suffered extensively. As in all cases of this kind, the general condition of the patient was much below par.

The deep and destructive variety of epithelioma is that which usually attacks the nose and the penis. It is steadily progressive in its action,

FIG. 3. Deep, Destructive Epithelioma.

and reduces the vitality of the patient, not only by its action on the nervous system, but by the auto-intoxication which takes place. These are the cases which require radical operative measures, combined with active supporting treatment of a roborant nature. Where the veins are implicated amputation would seem to be the only proper method to pursue. Even then the glands in the groins are usually so deeply implicated that their removal will not help matters much unless all these operative measures have been adopted early in the course of the disease. When the nose is affected there is usually a marked destruction, as is well shown in Figure 3. The large amount of tissue which has disappeared, and the extensive implication of the remaining parts, are well shown. In addition to this, there may be seen numerous lesions, indicative of new foci, each one of which would result in an epithelioma. In such cases, rhinoplasty is done by some operators,

but too often the ultimate result of operation is the same as that of the disease. A large cavernous hole is left which is hideous to behold. In those cases which do succeed, one fact is to be noted—a preliminary course of treatment, calculated to render the tissues better, has been given, and there is gotten, in consequence, a greater probability of a successful termination. The deep-seated and destructive variety also attacks the extremities and limbs; and here, of course, curative measures are more easy of application.

The want of space forbids an extended consideration of the papillary and seborrheic forms of epithelioma. In the former there is a verrucous appearance and the presence of numerous elevated crusts mingled with horny matter. Between these there exists a slight degree of ulceration of a more or less sanious character, through which a rather fetid, more or less greenish pus is to be seen. In the seborrheic variety we have one comparatively rare, and only seen upon the face. I have never had occasion to see but one case, but the seborrheic character which was present was certainly marked. A good description of this interesting form is given by Ernest Besnier.[1]

The treatment of epithelioma should be both general and local. A general tonic is of the utmost value, and what has been regarded as the best by many authors is the arsenical form. Formerly, I prescribed an Asiatic pill, composed as follows:

℞ Acidi arseniosi ..... gr. ij
Pulv. piperis nigris ..... ʒ ij
Ext. gentian ..... q. s.
M. Ft. caps. No. 60.
Sig.—One capsule after each meal.

A better remedy to use is arsenauro, in ten-drop doses in water after each meal. In addition, some malt preparation will be found quite serviceable, especially if combined with the tincture of the bark, as it will tend to increase appetite and assimilation. For the pain which is present anodynes should be used, such as lactophenin, bromidia, or Peacock's bromides. Opium and its alkaloids, it will be found, are not well borne in this condition. As local treatment must be quickly applied, it is unnecessary to continue anodynes for a protracted period of time.

So far as local measures are concerned, it is unnecessary to dwell upon them at any length. Ointments are perfectly valueless. Vienna paste, Bougard's paste, Marsden's paste, and similar escharotics, whilst useful, produce such a degree of pain as to reduce them to the category or barbarous measures. The same may be said of lactic acid. For epitheliomata which are superficial, the application of twenty-five per cent. pyrozone is efficient. It must be repeated a number of times, but is very good. Then an ointment may be used as a protective and sedative. Cauterization with chemicals is employed by some; and the same effect, produced by means of the red-hot iron, galvano-cautery, Paquelin's cautery, etc., is resorted to by others. Electrolysis is another of the methods which have been highly lauded; and yet, upon the whole, excision by the knife is no doubt the best, and followed by the most satisfactory results. One point must not be forgotten, and that is to cut sufficiently deep and sufficiently wide so as not to leave a point to form the focus of a fresh growth and relapse of the trouble.

[1] A Pictorial Atlas of Cutaneous Affections, etc., from Models in the St. Louis Hospital. Part III., 1896.

KRYOFINE—A NEW ANTIPYRETIC, ANALGESIC AND SEDATIVE.

By ARTHUR E. MINK, M. D., of St. Louis,

Professor of Mental and Nervous Diseases, College Physicians and Surgeons; Neurologist to Baptist and Woman's Hospitals; Clinical Lecturer on Neurology to the St. Louis City Hospital.

SINCE the great German chemist, Wohler, in 1828, first broke down the artificial distinction between organic and inorganic chemistry by the discovery that the simple heating of cyanate of ammonia could produce urea, science has attacked with renewed vigor the citadel of synthetic chemistry. The brilliant results achieved in this branch of chemistry of late years, especially in working upon the coal-tar compounds, have led to the well-founded hope that at no distant day science may be enabled to produce even the vegetable alkaloids synthetically, notwithstanding their marvelous molecular complexity.

Amongst the best results thus far obtained from the manipulation of the coal-tar compounds is the discovery of methoxacet-p-phenetidin (kryofine) by Dr. Bischler, a privat-docent of chemistry in the University of Zurich. This compound has few of the disagreeable effects of the older remedies like phenacetin, antipyrin, acetanilid, and others, and at the same time manifests its beneficial effects in smaller doses.

Kryofine is a p-phenetidin derivative. It is obtained by heating p-phenetidin and methoxyacetic acid to about 120°–130° Centigrade. It crystallizes in needles, in water, at a temperature of from 98°–99° Centigrade.

Kryofine occurs in fine crystals, which are colorless, odorless and tasteless. It is sparingly soluble in cold water (1–600 parts), but dissolves in fifty-two parts of boiling water; it is soluble in fixed oils, alcohol and glycerine. It is incompatible with the salts of the heavier metals and with the halogens and vegetable astringents. It inhibits the development of pathogenic and non-pathogenic bacteria, and has a slightly anæsthetic action upon the thinner skin and mucous membranes.

Administered in moderate doses, kyrofine stimulates slightly the accelator cordis nerves and the cardiac gangalia, along with stimulation of the vaso-constrictors. Hence, there results, in initial stages, a mild augmentation of the cardiac and pulse beats. Later, there results a diminution of vaso-constrictor action, along with concomitant increased stimulation of vaso-dilator nerves, particularly those supplying the skin.

The results of sphygmographic and manometric experiments show that ordinary doses of kryofine have no depressing effect upon the pulse rate or blood pressure. On the contrary, moderate doses seem to have a stimulating effect upon the heart's action.

In contra-distinction to many coal-tar compounds, kryofine has no appreciable effect upon the respiratory rhythm. Compounds like acetanilid, for instance, have a peculiar action upon the blood, reducing oxyhemoglobin and changing it to methemoglobin. Kryofine has no such action upon the blood. The cyanosis so frequently observed in the use of acetanilid is rarely if ever seen from the use of kryofine.

Kryofine diminishes the irritability and conductibility of the sensory nerves and the posterior columns of the cord, as well as the sensory areas of the cerebral cortex. This power of diminishing the irritability of sensory nerves and centers makes it a pronounced analgesic; this property, combined with a certain inhibitory action which it appears to exercise upon the cortical and subcortical motor centers, makes it a sedative.

Kryofine seems to increase only slightly the amount of urinary pigment, being thus in marked contrast to some other coal-tar compounds, which often increase it enormously, probably by means of their power of reducing hemoglobin. It is a pronounced antipyretic, acting quickly and safely. It diminishes heat production by stimulating the thermo-inhibitory centers in the Rolandic area of the cerebral cortex; and if Claude Bernard was right in affirming the existence of calorific or heat-producing nerves, and frigorific or cold-producing nerves, it certainly stimulates the latter fibers. Whether kryofine circulating in the blood acts directly upon heat production in the muscular and glandular tissues, by inhibiting tissue change, we do not know but that its chief action as an antipyretic is in the way above mentioned, we are certain. Many antipyretics act by increasing heat discharge through increased dilatation of the cutaneous blood vessels and sweating; this, kyrofine does not do.

I have lately been using kyrofine in my practice quite extensively, and find that it has many advantages over most other synthetic compounds, particularly as an analgesic and sedative. Some affections test the value of analgesics better than others, among such are those "opprobrii" of medicine, sciatica and facial neuralgia; I have found kryofine to have been very prompt and efficacious in such cases. I have used it, too, with most satisfactory results in the lancinating pains of locomotor ataxia, employing it recently in the case of a French lady who has suffered for years with most terrible pain. She is always relieved by kyrofine.

This drug is also of peculiar value in the neuralgiaform pains of hysteria and neurasthenia, and, in fact, the neuralgias in general. It is of great value in migraine, the clavus of hysteria, and the peculiar helmix-like headache of neurasthenia ("casque neurasthenique," Charcot). One of my patients, who suffers at every menstruation with a characteristic and most harassing headache, and to whom I have given almost every known sedative and analgesic, tells me that kryofine gives her almost immediate relief.

Knowing this drug to be an effective sedative, I have been using it in selected cases of epilepsy, with quite encouraging results. In most cases it has diminished the number and severity of the fits.

Through its power of abrogating painful sensations, kryofine is indirectly a hypnotic; in many cases has most pronounced hypnotic effects, especially after pain has ceased. On account of this property, I have used it in the very restless and depressed period following alcoholic sprees; in

the restlessness and insomnia of senile dementia, acute mania, and agitated melancholia. In the restlessness of neurasthenia, with its vague pains, this drug also acts well. The pains of multiple neuritis, particularly of the alcoholic variety, are relieved by it. I have used it with success to relieve the pain and spasms of meningitis, in both adults and children; it has also given timely relief in one case of intercostal neuralgia. I have found it useful in the visceral neuralgias, such as gastralgia, ovarian neuralgia, etc. In short, I can say that, in my opinion, it is second to no other synthetic compound as an analgesic, and in most respects superior to them all.

Although my experience with this drug has been largely along neurologic lines, yet I have had sufficient experience with it as an antipyretic to value it highly. In two cases of acute articular rheumatism, with high fever, I found that kyrofine promptly reduced the temperature and eased the pain. Given with quinine, I have found it a valuable adjunct in the treatment of malarial fevers. In meningitis this drug reduces the fever directly by its peculiar action upon the heat centers, and indirectly by allaying the irritation of the sensory nerves of the dura. It is the best antipyretic to give in pneumonia, as it does not interfere with respiration or the heart's action. For the same reason, it is of the greatest value in scarlet fever, and especially typhoid fever, particularly at that period when remedies which interfere with the pulse and respiration are to be guarded against.

To recapitulate—the chief merits of kryofine, in my opinion, are these: rapidity of action, absence of depressing action upon the heart, respiration or pulse, comparative smallness of dose, absence of cyanosis following its administration, its promptness and reliability as an analgesic and sedative, and last, but not least, its power as an antipyretic, reducing fever slowly, surely, and safely, without depression or disagreeable after-effects. All of these properties combined will cause it to steadily win its way to a high place in the confidence of scientific medical men.

It is rare for me to prescribe more than ten grains of kryofine at a dose, my usual dose being about seven grains, not to be repeated too often. Usually, I prescribe it to be taken dry upon the tongue, and washed down with water. It can be given in capsules or dissolved in alcoholic solutions, alone or with glycerine and aromatic syrups.

Bishop's Varalettes embrace such remedies as are most advantageously administered in solution. They dissolve rapidly and completely with brisk effervescence, producing a clear and palatable draught.

A great advantage of the varalette over the ordinary compressed tablet is that perfect solution is obtained, thus insuring the immediate and full activity of the medicament, as well as absolute accuracy of dosage, on which account physicians give them the preference. The list of varalettes includes: antipyrine, antipyrine and caffeine, lithia citrate, piperazine citrate, sodium bromide, bismuth, ammon. cit., etc.

The American agents are Messrs. Lehn & Fink, New York, well known as introducers of new remedies, and who will furnish literature on application.

CREOSOTE IN THE TREATMENT OF CONSUMPTION.

By P. L. Scanlan, M. D., of Lancaster, Wis.

I HAVE but one idea to present in this paper, and will be brief. It is needless to say that this is not intended to be a scientific article, but I hope it may be practical from the standpoint of the average practitioner.

Creosote, as you know, is a product of coal-tar. It was first introduced as an external local antiseptic. Its use as an internal remedy is comparatively recent, while its application to the treatment of tuberculosis pulmonalis is of but a few years' standing.

My eyes were attracted by the literature put out by the firm that sold creosote carbonate, and I was induced to use that form of the remedy in a great number of cases. It is a less objectionable form of the medicine than any other. I gave it in gradually increasing doses, beginning with one minim, and making twenty minims the maximum dose. I used it pretty carefully in six cases during the year 1896. The youngest patient was a child three years of age, and the oldest was sixty-five. Some were in the early stages of consumption, but most of them being well advanced in the disease. In every case the fever, cough and sickness diminished, while the patient improved in appetite and flesh, slept better, and *seemed* to gain in every way. The deception was manifest only when the pulse was examined and found that there was a smallness and rapidity that indicated an increasing anæmia, which was being quickly produced, as I believe, by the action of the powerful poison, creosote. I think in every instance life was made more comfortable, but sooner terminated, wherever this one remedy was alone used. When its action was combined with tonics, such as cod-liver oil, hypophosphites, or arsenic, there was less of the anæmia present. Of all these tonics, arsenic showed the best results. I observed in one case that a leucorrhœa of long standing and of a specific kind was entirely cured, also that gonorrhœa may yield to the internal administration of the remedy. There is evidently a marked action upon all pus microbes by creosote, whether applied locally or taken internally, as it comes in contact with the pus present in the blood or upon surfaces which excrete the creosote. It is said that it acts as an antiseptic. It has a local action upon the nerves, apparently the end organs of the nerves, but positively on their central origin, so that it allays irritability, as seen in itching on surface of skin, or as vomiting from hypersensitiveness of the nerves of the stomach. The action I desire to lay stress upon is its antifermentation power. It may not kill bacteria in the system, but, perhaps, destroys their ptomaines, or else renders their action non-toxic and inert. The ptomaines are the ferment producers, and all septic fevers are due to their presence in the

blood. The stomach and intestines of consumptives always have a pathological fermentation going on within them, which is in a large measure overcome by the action of creosote. It is a neurotic poison, like digitalis, strychnine and belladonna. Its action on the blood is in dispute by medical authorities, but it is my conviction that in some way it produces anæmia; and it is owing to this fact that it is not a specific in the treatment of consumption. Creosote being present in the blood takes oxygen from it, and is, perhaps, changed in part to carbolates and oxalic acid, as a result of the oxidation. In this way it prevents oxidation of the tissues, and may lessen fever and tissue waste in the manner that alcohol does, which would help to account for its antipyretic action. The blood has a darker color, as there is less free oxygen present. Its action on pus microbes shows its wonderful cures in so-called cases of consumption, namely, catarrh of the apices of the lungs. It is my firm belief that no case of phthisis has ever been cured by this remedy single-handed, but when combined with tonics or climate it may stay the progress of the disease by preventing hectic and enabling nature to resist the influence of the bacteria of tuberculosis; but it does not lessen the action of tubercle in the human body or directly modify its course. It is my opinion that if some remedy could be discovered or, perhaps, some climate attained that would invigorate the system and strengthen its resisting powers by increasing assimilation and nutrition, it could be combined with creosote to cure phthisis. It is said that nucleins will do as much, but my experience with the nucleinse has been very far from satisfactory; and yet the theory that nuclein increases the number of white corpuscles, and that it ought to attack the specific microbes and remove them from the system, or at least prevent their increasing in number, and if combined with the action of creosote, ought to furnish the best known treatment to-day for consumption.

My paper is open to criticism from a scientific point of view, but as many theories of to-day are overthrown to-morrow, I have endeavored to report my observations and conclusions as they appear to me, and have not tried to change them because of any antagonism that may exist.

The Deadly Effects of Firearms is being steadily increased by the constant improvements which are being made. The *Scientific American* says that the deadly effect upon game of small, metal-covered expanding bullets, with high-velocity smokless powder, has been recently satisfactorily demonstrated. Modern weapons possess several advantages over the old large calibers in flatness of trajectory, absence of smoke, long range, increased penetration, high velocity, less recoil and light-weight ammunition. The expanding bullet produces invariably an area of laceration greater than ever effected by any projectile before used. Without calculating the effect of the nervous shock, extensive splintering of bone and laceration of tissue are produced. The secret of the deadly effect of those small projectiles lies in their expanding qualities and extraordinary high velocity resulting from the use of smokless powder, which is only possible when confined in small calibers. These facts are of interest, not only to the members of the profession who are notorious Nimrods, when in search of large game, but are of immense practical value to the army and navy surgeon.—*Health.*

HISTORICAL SKETCH.

JULIUS CASSERIUS, 1561-1616.

Casserius was a student of Fabricius ab Aquapendente, and succeeded his master in the anatomical chair at Padua. Like Fabricius, he is noted

One of the Casserian Plates of the Brain.

for his researches upon the organs of voice and hearing. He attempted to publish a complete system of anatomy, and had the figures engraved, but died before the text was written. The plates, however, were preserved,

and appeared in the anatomy of Spigelius. Made by a clever artist, Fialetti, the plates show many interesting facts, which only too frequently have been credited to later writers. Thus they show the arachnoid upon the base of the brain, the oblong furrows of the corpus callosum, the infundibulum, the ventricles, the pineal gland, and the canal in the corpora quadrigemina, which passes from the third to the fourth ventricle, and which erroneously bears the name of Sylvius.

In 1604 the Senate of Venice elected Casserius successor to Fabricius. Three years before this time Casserius had issued a grand work: *De Locis Auditusque Organis Historia Anatomica*, which was published at Ferrara. It contained thirty-seven excellent copper-plates. The first plate is the title-page, the second a picture of the Duke of Parma, the third a portrait of Casserius, and the remaining ones are anatomical. Of these, twenty-two are devoted to the organs of voice, and twelve to the ear. Joseph Maurer was the artist. The *Pentæstheseion, hoc est de Quinque Sensibus Liber*, appeared at Venice in 1609, with thirty-three copper-plates and an engraved title-page. The twelve plates of the ear appear again, but those belonging to the organs of the other four senses are new. The great work on which Casserius spent many years did not appear during his life-time. It was his intention to give the world a complete anatomical treatise, and in its preparation no expense and labor were to be spared. Unfortunately, Casserius died before it was completed. His successor in anatomy was **Adrianus Spigelius** (born at Brussels in 1578, died in 1625), who intended to issue the book of Casserius. Spigelius died before his time, and entrusted the publication to **Daniel Bucutius** (Bœrtius), under whose direction the work was published at Venice in 1627, with this title: *Julii Casserii Placentini Tabulæ Anatomicæ, LXXIIX.* To the seventy-eight plates belonging to Casserius, Bucutius added twenty of his own. The Casserian plates were drawn by Odoardus Fialetti and engraved by Franc. Valesius. The same year these identical plates, with text by Spigelius, appeared at Venice, entitled: *Adriani Spigelii de Humani Corporis Fabrica Libri Decem*, with ninety-eight plates.

The first edition of the anatomy of Spigelius appeared at Amsterdam in 1625. The author accepted the doctrine of the pulmonary circulation, so far as regards the course of the blood, but did not believe in the mixture of blood and air, and consequent arterialization of the blood in the lungs. He described the difference between the venous and arterial blood: "In the first place, the blood of the veins is more fibrous; that is, it contains more fibers (coagulating material). Secondly, it is thicker; that of the arteries, on the contrary, being more attenuated, owing to its coction in the heart. And lastly, they are distinguished by their color: for one is dark, the other ruddy; one destitute of spirits, the other impregnated with them; the one at rest, the other agitated by perpetual and incessant motion."

The son-in-law of Spigelius, Liberalis Crema, of Padua, purchased a number of copper-plates from an uncle of Casserius, and in 1626 issued some writings of Spigelius under this title: *Adriani Spigelii de Formato Fœtu.* This was in folio, with nine copper-plates. They show the pregnant uterus, placenta and child.

FORMULAE.

La Grippe.

℞ Benzoate soda ..... ½ oz.
Glycerine ..... 1 oz.
Tongaline ..... 4 ozs.
Aqua mentha pip ..... 2 ozs.

M. Sig.—Tablespoonful every two to four hours.

Pruritus of the Vulva.—In cases that are not parasitic, says the *Independence médicale*, M. Mussy advises the following applications:

℞ Finely powdered starch ..... 300 grs.
Bismuth subnit .....
Potass. brom ..... aa 15 grs.
Calomel ..... 8 grs.
Powdered belladonna ..... 3 grs.

M. To be applied twice a day. It is said to give almost instant relief.

When the itching affects the inner surface of the mucous membrane, it is preferable to prescribe the following:

℞ Infus. of mallow flowers ..... 1 qt.
Cherry-laurel aq ..... 759 grs.
Borax ..... 150 grs.

M. To be used as an injection twice a day. After each injection, the parts are to be smeared with an ointment of one part of chloroform to ten parts of vaseline.

Bernheim (*Vienna Clinical Formulary; Ex.*) prefers cocaine to chloroform and gives the following formulæ:

℞ Emollient ointment ..... 100 parts
Cocaine hydrochloride ... 1 part

M.

℞ Pure carbolic acid ..... 1 part
Aq ..... 20 parts

M. Sig.—To be painted on.—*Kansas City Medical Record.*

Herpes.

℞ Resorcin ..... 45 grs.
Cocaine ..... 15 grs.
Alcohol ..... 3 ozs.

M. Sig.—Apply with a swab to the herpetic spot.—*Therap. Gaz.*

Bubo.

℞ Hydrarg. biniodide ..... ʒ ss–iss
Adipis ..... ℥ ij

M. et ft. ungt. Sig.—Apply twice daily. —*Lugol.*

Bites of Insects, Etc.

℞ Liq. ammon ..... 45 gtt
Collodii ..... 15 gtt
Acid salicyl ..... gr. iss

M. Sig.—Apply a drop upon each bite. —*Lang.*

Acute Gastritis.

℞ Acid hydrocyan. dil ..... ʒ j
Aq. laurocerasi ..... ʒ ij

M. Sig.—ʒ j every two or three hours. —*Bartholow.*

℞ Liq. calcis .....
Aq. cinnamon ..... aa ℥ iss

M. Sig.—ʒ j t. i. d., dissolved in water fifteen minutes.—*Starr.*

℞ Argenti nitrat ..... grs. v
Pulv. opii ..... grs. iiss

M. Ft. in pil. No. 20. Sig.—One t. i. d. —*Hartshorne.*

Lancaster's Mixture for Whooping Cough.—This formula is given in the *Revue mensuelle des maladies de l'enfance:*

℞ Tinct. of belladonna ..... 10 parts
Phenacetine ..... 5 parts
Brandy ..... 15 parts
Fl. ext. chestnut leaves ..... 60 parts

M. Sig.—Ten drops to be given every two to six hours to a child a year old; to one ten years old as much as a teaspoonful may be given.—*N. Y. Med. Jour.*

Acute Mania.

℞ Sulphonal ..... 15 grs.
Sodii bicarbonatis ..... 4 grs.

M. For one cachet. Sig.—From one to three such cachets daily. In cases that are rebellious much larger doses are given. —*Kadt, Medical Record.*

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EDITORIAL DEPARTMENT.

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SUDDEN DEATH FOLLOWING AN IMMUNIZING DOSE OF ANTITOXIN.

Dr. William Nifong, of this city, recently reported to the City Hospital Medical Society an account of a case in which a male, fifteen years of age, died shortly after the use of antitoxin. As this case is of great interest, we make no apology for inserting its history here.

"B. W., male, aged fifteen, student by occupation, consulted me on the evening of April 4th, complaining of sore throat; the throat was red, tonsils slightly enlarged, temperature 99°; had been exposed to diphtheria. I made light of his trouble and told him to come back the next evening. On his return the conditions were about the same; said his throat was sore, but he was not sick. I requested him to meet me at the Orphan's Home the next day at 2 P. M., and I would give him a dose of antitoxin; he was on hand at the appointed time; his condition was about the same as the day previous. I administered a dose of antitoxin, strength 1500 units, amount between 3 and 4 cc.; about the same quantity and out of the same bottle that I had just a few minutes before given to two girls without any bad results whatever. The administration was made between the shoulders and a little to the left of the spine; in about eight or ten minutes after the injection was made his sister came into the room and said her

brother was feeling badly. I went at once to see him and met him at the door of the hall; he complained of a numbness of the extremities and looked as though he was frightened and was very pale, which soon changed to a cyanotic appearance accompanied with rapid swelling of the face and sick stomach; vomited freely. I discovered that the heart was failing rapidly, and I administered one-fiftieth of a grain of nitroglycerine hypodermically, which was about twenty or twenty-five minutes after the injection of the antitoxin. Artificial respiration was used as best we could, but dissolution was rapid, and in thirty or thirty-five minutes he was dead. Failure of respiration and heart seemed to come on simultaneously."

In the discussion following the reading of the paper Dr. Amand Ravold said: "I examined the body carefully; it was still warm—he could not have been dead more than ten minutes; there was a waxy pallor about the forehead, side of the face and neck. The most remarkable thing about the young man was a marked swelling of the eyes, nose and lips, and they were as black and congested-looking as if he had been strangled. On examination I found a number of glands on both sides of the neck enlarged to about the size of an almond. The tonsils were enlarged and the mucous membrane of the pharynx swollen and rough-looking, as if it had been inflamed. There was no membrane to be found in the nose or pharynx. Four swab cultures were made from the throat and taken directly to the City Bacteriological Laboratory. They were examined by me the next day, and also on the 9th, but in not one of them was the Klebs-Loeffler bacillus found, although a most careful search was made for it." From bacteriologic examinations he concluded that the patient had had laryngeal diphtheria.

Doctor Ravold said that he felt satisfied that the antitoxin was as perfect a product as could be produced, and to prove his confidence in it took eighty cc. to the Home a few days after the accident and inoculated over thirty children and a few grown people with it, and with absolutely no untoward results.

Dr. Given Campbell said he did not believe the patient had died from the effects of the diphtheria antitoxin. He thought it might be the effects of psychic shock.

He said he would like to know what had been the result of experiments made by any of those present of injecting air into a vein. He said he had tried it on rabbits by injecting one or one and one-half cc. into the vein of the lobe of the ear of several rabbits weighing about 350 grams, and, while there would be a great disturbance for about two minutes, at the end of five minutes they would eat cabbage and seem to be about as well as ever. He did not know how human subjects would be affected.

Dr. William Nifong, in closing, said the impression made on him at the time of the child's death was that it was as much from fright as anything else, taking into consideration the circumstances and surroundings. It had been talked of in the Home for twenty-four hours and all were excited over it, and when he got there there was quite an uproar. Of course, he said this was quieted as much as possible. After inoculating three girls he commenced on the second bottle with two other girls. The boy had been prepared, his back having been made clean, and, to give him an opportunitity to get away as soon as possible, he used the last of this bottle

on him. He was out in the hall, away from the others, and appeared much excited, so that he hesitated about giving the injection at that time, but the boy was anxious to have it done. In about five or six minutes his sister came in and said her brother was feeling badly; he went at once and met him at the door and saw that he was much excited, or appeared so. By this time the sister was so excited she began crying and making considerable noise, and the other children were crying. He then led the boy to a couch, where he laid him down, but he never spoke and in a few minutes was dead. The swelling of the face was intense; the lips were three times the normal size; the nose, eyes and eyeballs seemed puffed out.

NEW DOMAINS IN SURGERY.

It is remarkable to what an extent surgery now invades the diseased economy of man. This is particularly so since it has been demonstrated that the early removal of cancer frequently shows a lessened tendency to return: upon this basis inoperable cases, so considered in the past, are now freely assailed. In fact, to such an extent is this carried that the receptive organs, such as the bladder and stomach, are ablated with a seeming tendency to prolong life. We doubt whether the removal of the stomach can be accomplished with safety in one case in many thousands; but with the bladder it seems different.

Any surgeon of experience has been astonished at the wonderful toleration in operative procedure of the receptive organs. The stomach, owing to its enormous blood supply, heals readily and easily under almost any operation; while the bladder seems to respond after operations in as ready a manner.

We notice that Tuffier and Dujarier review the subject of total cystectomy where total removal of the bladder was accomplished owing to the presence of cancer. Of course, such procedure can only come in rare cases, but its accomplishment in several instances indicates that it is a procedure of merit.

We are free to confess, since the accomplishment of so many rare results in operations upon the stomach and bladder, that we are of the opinion that this field has as yet only been partially touched. Indeed, we are of the opinion that many hidden cases relegated to the domain of dyspepsia and stomach troubles will receive surgical treatment. We believe that with our present knowledge it is certainly foolish if not reprehensible to let any case of severe character, either in stomach or bladder, die without at least trying an exploratory operation.

Truly, then, all indications point to enlarging the operative field upon the receptive organs, bladder and stomach, and the lessening of ordinary therapeutic means.

THE THERAPEUTICS OF TETANUS.

Certainly in no domain of therapeutics does there appear a more positive advance than in the means at present used in the treatment of tetanus. Reports for the past few years place it beyond doubt that the only and the real therapeutic means for the treatment of tetanus lies in the serum treatment. What a God-send is this over the older and positively uncertain means formerly used.

Heddaeus, of Czerny's clinic (*Munich Med. Woch.*, March 29, 1898), in an article warmly recommends this procedure. The author then relates the details of two typical and very severe cases of cephalic tetanus, both treated with Behring's serum. The first patient was aged forty-five years, and the trismus appeared on the fourth day. The wound of the face was so extensive as to make it almost impossible to say where the facial paralysis commenced. In the second case, of a man aged twenty-eight, the wound on the face was insignificant. Heddaeus believes that there is evidence to show that, in this very severe case, the early injection of the serum was the means of saving the patient's life.

Heddaeus says that, so far, he has reason to be satisfied with the results of this treatment. With the exception of one case treated with opium, all of the twelve cases treated during the past twenty years in the clinic have died. He believes that preventive serum treatment deserves the best consideration.

A NEW METHOD OF DRAINING THE PERITONEAL CAVITY.

Any new device in the direction of drainage in operative procedure possessing merit certainly will be eagerly sought by the surgeon. It must be acknowledged that our present means of drainage in abdominal work has by no means reached perfection, and very much is desired in this direction.

We notice in the *Bullet. Mem. de la Soc. de Chir.* that a new method has been suggested by Delagenie. He holds that the means hitherto used for draining the abdomen after laparotomies are certainly defective.

Hence, he employs a perforated nickel tube, in which is inserted a skein of absorbent cotton, made to fit closely in the tube. In no case, the author states, should the metal tube be allowed to remain for a longer period than thirty-six hours. He further claims that excellent results have been attained in this manner.

Now, while this may be true, we doubt the propriety of introducing any hard substance, such as metal or glass, in abdominal operations. Certain it is that experience has shown that their sheer rigidity, no matter how aseptic they may be rendered, more than counteracts their good effects in drainage.

We believe that experience has shown that their rigid, irritating character is a positive menace to good results. Yes, we believe that in laparotomies they are dangerous.

The peritoneum is a membrane of marked peculiarities, trivial causes begetting bad results when least expected, and yet means of absolute and definite strength make it respond with vigor toward a healing process.

It has been within the writer's experience to have used repeatedly in pus cavities arising from abscesses in various parts of the abdominal cavity a mixture composed of equal parts of camphor and carbolic acid. Thus it is a surprising thing to see, when these elements are taken singly, their effects. Here is an acid which when applied separately readily corrodes, but when mixed with camphor it is robbed of its corroding effect and rendered thoroughly germicidic.

In the treatment of pus areas arising in cases of appendicitis, the wiping out of a pus cavity with this camphorated carbolic mixture has invariably returned good results.

TUBERCULOSIS AND FOOD.

It speaks volumes for the good sense and high motive of sanitary science to see the earnest endeavor of the British Royal Commission on Tuberculosis to prevent the extension of tuberculosis.

Well-timed and comprehensive measures are issued by this commission looking to the suppression of this most monstrous evil. Whether there will ever come a time when tuberculosis will be amenable to the painstaking care of man is a problem as yet unknown. But certain it is that effective means are showing results gratifying in the extreme.

The commission recommends, as a sanitary measure, that private slaughter-houses be closed, and that the centralization would prevent offensive trade processes incidental to the slaughter of animals.

Aside from this, the commission recommends, according to previous acts, the prevention of the sale of tuberculous milk, and put in force in a more extended form. Again, they advise that all diseases of the udder, and all owners of cows which exhibit outward symptoms of tuberculosis shall be notified; and they urge the Board of Agriculture to assist farmers in eliminating the disease by manufacturing tuberculin, and by offering a supply, together with the services of a veterinary surgeon, gratuitously. As regards cow-sheds, they recommend that in strictly rural districts such cubic space shall be provided as will secure reasonable ventilation without draft. The *British Medical Journal* says: "Unquestionably, these proposals mark a great advance in opinion, and it may be hoped that they will result in legislation at an early date. As especially valuable, we would single out the recommendation in regard to tuberculous milk, the notification of tuberculosis, and the provision for testing milch cows by tuberculin. The establishment of public, with exclusion of private slaughter-houses is greatly needed, and we trust that permissive legislation will suffice."

IMPURE CHLOROFORM.

Much has been written about impure chloroform, and many accidents have been attributed to the same. But we maintain that not one case in fifty of deaths claimed to arise from this source can be demonstrated.

In our opinion, the great cause of fatality in nine out of ten cases is faulty administration. Should anæsthetists take time to explain to each and every patient about to undergo a severe surgical operation, many a life might be saved and fatalities attributed to impure chloroform be lessened.

In the great field of sensible and well-timed suggestion lies the safety of administering chloroform. The Esmarch inhaler, the drop by drop method, the watching of the diaphragmatic region, and soothing suggestion, are saving factors in anæsthesia.

THE HOUR OF DEATH.

We notice in the *British Medical Journal* that its Paris correspondent writes concerning this question. Superstition has well been defined as a senseless fear, built upon ignorance. We cannot be led to believe that there is any particular hour in which men die. We believe that all men have a time to die, and the time is certain but not marked by hour.

Thus this correspondent says: "The belief that death claims more victims at midnight than at any other hour is one that is wide-spread among the general public. M. Fere, in a communication to the Biological Society in 1888, stated that he had carefully gathered statistics of the deaths at the Bicetre and Salpetriere Hospitals concerning those hours of the deaths which had occurred in these hospitals from 1878 to 1887, and all that he concluded from them was that from 7 to 11 P. M. there were fewer deaths than at other times. The statistics of different countries seem to differ. According to Signor Raseri, deaths in Italy reach their maximum from 2 to 7 P. M. Finlayson, of Glasgow, states that from 5 to 6 A. M. is the most fatal hour. Doctor Bendles affirms that most men die between 5 and 7 A. M., and most women between 6 and 7 P. M."

All of which showeth that uncertainty marks this discussion's basis. Madame De Stael thus in a sensible manner says:

"Superstition is related to this life, religion to the next; superstition is allied to fatality, religion to virtue: it is by the vivacity of earthly desires that we become superstitious; it is, on the contrary, by the sacrifice of these desires that we become religious."

THE EXAMINATION OF SURGEONS FOR U. S. VOLUNTEERS.

By the courtesy of Dr. G. Frank Lydston, of Chicago, Major and Surgeon of the Second Illinois Regiment, we are able to present the questions which were asked at a recent examination. Dr. Lydston carried off first honors—which is no less than his friends expected. Following is a list of the questions:

Surgery and Anatomy.

1. Detail the treatment of a recent case of compound fracture of the leg.
2. Describe the different kinds of acute synovitis and outline treatment of each.
3. When should you wait for a line of demarcation in gangrene before amputating?
4. From what vessels might hemorrhage come in a wound of upper thigh?
5. Enumerate the coverings of an oblique inguinal hernia.
6. Name the flexors of the forearm and give points of origin and insertion.

Practice of Medicine.

1. Describe pneumonia; definition; etiology; morbid anatomy; symptoms; complications; prognosis; termination; diagnosis; treatment.
2. Describe dysentery; definition; etiology; clinical forms; complications and sequelæ; treatment.
3. Describe yellow fever; definition; etiology; morbid anatomy; symptoms; diagnosis; prognosis; prophylaxis; treatment.

Materia Medica.

1. What are the more common forms of mercury used in medicine? Write prescriptions for four.
2. Mention the comparative advantage of ether and chloroform as anæsthetics?
3. Indications for the use of emetics, cathartics and alcohol.

HYGIENE.

1. Give your ideas on the selection and sanitation of camps.
2. The prophylaxis and treatment of sunstroke.
3. How would you determine in the field, in a general way, the salubrity of the water supply, and what measures would you take for preventing its pollution?

MILITARY SURGERY.

1. Give method of treating (temporary) gunshot fracture of the thigh on the field, and when and how would you remove the patient?
2. What is the effect produced by the modern small, jacketed bullet compared with the old large-caliber missile?
3. Give method of procedure in rendering first aid to and removal of wounded from fighting line to field hospital?

THE THIRD PAN-AMERICAN MEDICAL CONGRESS.

The committee on organization of the third Pan-American Medical Congress, which is to be held in Caracas, Venezuela, Christmas week, 1899, has been appointed, as follows: President, Dr. José Manuel de los Rios; First Vice-President, Dr. Nicanor Guardia; Second Vice-President, Dr. José I. Cardozo; Third Vice-President, Dr. Alfredo Machado; Treasurer, Dr. Luis Ezpelosin; Recording Secretary, Dr. Luis Razetti; Corresponding Secretary, Dr. Francisco A. Rizquez; and Drs. B. Mosquera, P. Acosta Ortiz, H. Rivero Saldivia, E. Ochoa, M. A. Seco, S. A. Dominci, E. Rodriguez, and M. Herrera.

As a knowledge of the Spanish language is valuable, in fact almost indispensable, to those who expect to attend the Pan-American Congress, we suggest that now is the proper time to begin the study of this language. To one who has studied Latin, or French, or Italian, the Spanish is easily acquired. It is a beautiful language, void of silent letters and pleasing to the ear. Whatever we may think of the Spaniards, there is no question about the utility of the Spanish language.

NOTICE OF CHANGE OF MEETING PLACE.

On account of the destruction of the Elms Hotel at Excelsior Springs, it has been found necessary to change the meeting place of the Missouri State Medical Association to Kansas City. The society will be in session, May 24th, 25th and 26th. The sessions will be held in Lyceum Hall, 104 West Ninth street, Kansas City.

MEETING OF THE ARKANSAS MEDICAL SOCIETY.

This society met in Eureka Springs on the 11th, 12th and 13th of the present month. There was a large attendance and much good scientific work was done. The hospitality of the citizens of Eureka was unbounded, and every visiting doctor left with a good impression of this charming health resort.

Dr. J. W. Hayes, of Eureka Springs, was elected president. The next meeting will be held in Little Rock.

EUQUININE.

For many years chemists have tried to furnish to the medical profession a preparation of quinine which would retain the characteristic therapeutic qualitites of this medicine and be free from its unpleasant properties. This result has been attained recently, thanks to the efforts of the "Vereinigte Cheminfabriken" (Zimmer & Co.), of Frankfort-on-the-Main. The new preparation is called euquinine.

Euquinine is produced by the action of chloro-carbonic ethyl-ether on quinine. The chemical formula is:

$CO: O\ C_2H_5;\ O\ C_{20}H_{23}N_2O$.

Euquinine occurs in the form of fine needle-like white crystals that melt at 95° C., scarcely soluble in water, but easily so in alcohol, ether and chloroform. The solution reacts as a basis on litmus paper, and with acids forms readily crystallizing salts. A solution in sulphuric or nitric acid fluoresces with a blue color, like quinine.

As regards its application in disease, several eminent German physicians have called attention to its value in whooping-cough, intermittent and remittent fevers, neuralgias, and as a general antipyretic.

Euquinine *is practically tasteless*. It does away with all the cerebral symptoms of quinine except the tinnitus.

Dr. Gallinger, of Erfurt, has given valuable testimony. He states (*Allgemeine Medizinische Central-Zeitung*, 1897, No. 19):

"Euquinine can claim a high practical value in influenza cases, since quinine was, during the influenza epidemic of 1889–90, recommended by Graeser and others as a preventive (*Berliner Klin. Wochenschrift*, 1889, page 1109). I have lately had the opportunity of making observations on a series of influenza cases, which showed symptoms of nervous disorders as well as the ordinary symptoms of affection of the air passages, the heart and the intestinal canal. Sulphate of quinine—formerly employed against these symptoms—has been justly abandoned, as the sensitive state of the intestinal canal of most patients prevented the retention of the drug and caused nausea and vomiting. The effect of euquinine in each of these cases was very different from the above described: owing to its tastelessness, no patient wanted much persuasion to take it, particularly when given in milk or cocoa. The result proved satisfactory without exception, the rheumatic and neuralgic pains being almost immediately lessened to a considerable extent. There is no medicament to equal euquinine in the case of influenza with nervous symptoms, euquinine causing no troublesome secondary effects, as do phenacetine, antipyrine acetanilid, etc. Even children can easily take three to eight grains of euquinine in sherry, while it is well known that they refuse quinine."

Professor C. Von Noorden, M. D., of Frankfort-on-the-Main (*Centralblaltt für Innere Medizin*, 1896, No. 48), gives valuable testimony in favor of the new preparation. He says:

"I do not hesitate to pronounce euquinine to be a most valuable addition to our stock of medicines, and to recommend it to my colleagues for further trials and investigation."

We trust that our readers will give euquinine a trial.

CHICAGO LETTER.

War Questions Discussed by Doctors.

The regular meeting of the Physicians' Club, of Chicago, held May 2, 1898, at the Palmer House, was an interesting and memorable one. The banquet hall was beautifully and appropriately decorated for the occasion, and the meeting was enlivened by war songs exquisitely rendered by the Lexington Quartet.

The subject for after-dinner discussion was ably handled by the different speakers. The following was the program:

Subject.—"The Medical Aspect of the War Question."

Chairman.—Dr. Edmund Andrews, late surgeon 1st Regiment, Illinois Light Artillery.

Program.—"The Medical Department of the Army: Its Organization and Duties," Dr. Truman Miller, late A. A. Surgeon, U. S. A.; "The Attitude of the Insurance Companies Toward the Military Man," Dr. J. H. Stowell, President Chicago Medical Examiners' Association; "Hygiene of the Camp," Dr. Charles Adams, Surgeon 1st Regiment, I. N. G.; "The Surgeon on the Battlefield," Dr. Nicholas Senn, Surgeon-General, I. N. G.; "The Surgeon on a Warship," Dr. J. Nevins Hyde, late Passed Ass't Surgeon, U. S. N.; "Probable Influence of the Modern Small-Arm Projectile on Military Surgery," Dr. G. Frank Lydston, Surgeon 2d Regiment, I. N. G.; "Climatology of Cuba as a Factor in the Present War," Dr. John B. Hamilton, late Surgeon-General Marine Hospital Service.

Dr. Miller described the organization of the medical department of the army as it existed during the late war. The surgeon-general with rank of brigadier-general, was at its head, followed by the assistant surgeon-generals, medical inspectors, and regimental surgeons, and assistant surgeons. These positions in the regular army are obtained by gradual promotion from the lower grades. When the army was increased by the president's call for volunteers, there was, of course, an increase in the medical department, by the appointment of regimental surgeons assistant, and acting assistant surgeons of the volunteer corps.

In the State militia, the regimental surgeon, with rank of major, receives his appointment by the State, as do also the assistant surgeons, this being done at the recommendation of the colonel of the regiment. No law insists upon the examination of these officers, as is done for those of similar rank in the regular army. The speaker thought this should be done. When the State forces are received into the national army, in time of war, the surgeon-general has the power to demand that all existing surgeons and assistant surgeons shall pass an examining board and show their proficiency. Whether he will exercise such power in the present emergency remains to be seen.

In 1863 the ambulance corps was formed, but its organization and efficiency were at that time very imperfect, compared with that of the present. At that time the hospital force was supplied by untrained men, detailed by the colonel of the regiment or captains of the companies, whose chief qualification was that they were unfit for any other duty. As soon as they showed any ability in their new work, they could be relieved and

transferred to the fighting forces again by the colonel of the regiment. The ambulance corps of the present day is much better organized and equipped. Men enlist as hospital stewards and assistant hospital stewards, and receive special training for the duties they have to perform. Furthermore, they are under the control of the medical department, and cannot be detailed for other duty without the consent of the surgeon in charge. This is a distinct advance.

The duties of the surgeon in the army are practically unlimited, and the responsibilities of the position are great. Upon his judgment and skill often depend the welfare and comfort of officers and men. The location and sanitary arrangements of the camp; the inspection of water and food supplies; the prevention and spread of infectious diseases, and numerous hygienic details, come under his direction, so that he requires the ability and training of a general practitioner, as much or more than that of a special surgeon.

In the absence of Dr. Chas. Adams, who was in camp with his regiment at Springfield, Dr. John B. Hamilton spoke to the subject "The Hygiene of the Camp," and also to the subject assigned to him on the program. His experience dated from his enlistment as surgeon of the 61st Regiment Illinois Volunteers. At that time little attention was paid to camp hygiene, and even after the war in his experience in an army post on the frontier, this important matter was given scant consideration. An order issued by Surgeon-General Barnes that strict care should be paid to hygiene of the camp, selection of food and water, and ventilation of barracks, was nullified by General Sheridan, then in command of the Department of the Missouri, who issued a circular that the order would not be obeyed because it was subversive of military discipline. But the desired result was accomplished by the surgeon-general issuing another order that such directions should be made through the regular military channels. The selection of a proper place for the camp is of the utmost importance, and as there is no time to supply artificial means of drainage, rolling ground should, if possible, be taken, and all the tents should, of course, be ditched. The latrines should also be guarded, and the men carefully watched for diarrhœal signs. Nothing will stampede a camp so quickly as to get it infected. Should any infectious disease break out, systematic medical inspection should be practiced morning and evening, and those who are sick of the infectious disease should be sent to special hospitals, and those with general diseases to the general hospital.

Speaking of the climatology of Cuba, Doctor Hamilton said that from his own personal observation he was satisfied that the climate there is very favorable to health. The island, which is 680 miles long, has a mountainous backbone, from which are given off numerous spurs. From Blue Peak, 8200 feet high, in the eastern part of the island, the mountains descend to the west, where they reach a point 2000 feet high, back of Havana. The hills in the immediate vicinity of that city are 900 feet high. The trouble lies in Havana itself, whose dirty houses are infected, and whose foul sewers constantly pollute the waters of the bay. The outer bay is beautiful and clear, but the water in the harbor, two miles from the mouth, is stagnant and reeking with filth. Certain wharves are recognized as centers of infection; and if ships anchor over night at these points there is

almost certain to be an outbreak of yellow fever among the sailors. Sewers or gutters, which for many years have been infectious, open under these wharves. No effort is made by the authorities to ascertain and cleanse these infectious localities. Sanitary engineers have stated that if some of the neighboring streams were diverted into the bay the trouble would be relieved. With things as they are, if our troops were compelled to remain in Havana many of them would be lost; but if camps were established in the hills and surrounding mountains the men would be safe, for he does not believe that the danger of yellow fever is half so great as reported. Inasmuch as vessels that go to the wharves are in such danger of becoming infected, ships that have to obey northern quarantine regulations receive their passengers and freight in lighters. There is a just cause for war in the existence of such a locality of pest, and the nation harboring it should be considered a public enemy.

Dr. J. H. Stowell, speaking on "The Attitude of the Insurance Companies Toward the Military Man," said that most of the companies have placed themselves on record that if their policy-holders meet death while in military service, their claims will be paid in full. This applies to cases in which the policy has been in force for a sufficient time to make it incontestable. The period in many of them is two years; and if a man desires to go into active military service before the expiration of this time, he must secure a permit from the company in which he is insured. While the contingencies of war are recognized by all insurance companies, it is not to be forgotten that their funds are held in trust and must not be endangered by losses of war without extra premium. When it is considered that all insurance companies are comparatively young, and that at the time of the last war only one-fiftieth of our entire population was insured, and that of the 4,000,000 of those engaged in military duty only three-fourths of one per cent. carried insurance, it will be seen that actuaries have little experience by which to govern their discussion, now that insurance has become so general.

Dr. Nicholas Senn, who was next on the program, was unfortunately detained at the camp at Springfield.

Dr. J. Nevins Hyde spoke to the subject:

"The Surgeon on a Warship." He recalled some of his interesting experiences on board of the *Powhatan*, which for two weeks blockaded Havana. He alluded to the wretched hygienic condition of Havana, and considered the war a just war that would convert the place from a pest-house and a source of danger to our country to a beautiful and healthful city. The surgeon of a warship has to be a practitioner of medicine and even, at times, a dentist. To one of his colleagues, the duties of the dentist were so distasteful that he made a practice of pulling a tooth in the presence of the whole crew on deck, in order that the howls of the patient would excite such terror among his audience as to completely banish all signs of toothache. An important matter to the surgeon in the navy is that of rank. As it is at the present time, the medical man on board a man-of-war is entirely under the direction of the commander of the vessel, who is a perfect autocrat when his vessel is at sea. The medical officer is as much beneath him as any of his subordinates. There is need that the naval surgeon have his own rank, not with nor above nor below the other officers,

but in a class by itself. The disadvantages of the position are many. His equipment of books instruments, and remedies is small, and he is accordingly thrown much on his own resources. He is constantly at the call of his superior officers, and must respond to all such calls as do the other subordinate officers. He lacks professional companionship even more than the surgeon of the army. But, with all the disadvantages and discomforts of the position, there is developed in the man a self-reliance that is of incalculable value; and added to this is the delight that comes of being held in esteem, even by the admiral, and the consciousness of patriotic duty well done, with no sinister or mercenary motives.

Dr. G. Frank Lydston, in considering the "Probable Influence of the Modern Small-Arm Projectile on Military Surgery," said that military surgery is on the eve of a revolution. The experience of previous wars furnish unreliable criteria from which to judge the military surgery of to-day. The surgeon of the last war, with his record of uncleanliness, and his agriculturally perfect but surgically fatal finger-nails, should be a thing of the past. The modern small arm is destined to be the chief factor in modifying military surgical practice. With its long range it will compel the hospital department to station its ambulances far from the line of action, and the efficiency of this corps will be accordingly lessened.

Doctor Lydston thinks the idea that there will be a great increase in the number of wounded in a modern battle because of the greatly increased velocity and range of the projectiles used, should be discounted because of several factors. While the carrying power of the small arm and the penetrating power of the projectile have greatly increased, the keenness of vision and the marksmanship of the soldier have not increased in like proportion. Again, at such long range, concealment from the enemy is accomplished more easily; and he thinks the soldier with the magazine gun will, in the excitement of action, waste more lead than he is worth. Very rapid firing from the modern small arm is likely to be very inaccurate firing.

As regards the character of wounds produced by the modern small-arm projectile, Doctor Lydston thinks there will be more immediate fatalities upon the field of action than formerly. Again, if wounds are not mortal, they will probably heal very rapidly, and the usefulness of the soldier will be very speedily restored. Some of the reasons given for the rapid convalescence of the wounded are: the small caliber of the bullet; the cleanness of the wound, and absence of foreign bodies within it; its punctured rather than lacerated quality; the lessened liability of sepsis, and the relative infrequency of injuries to large nerves and blood vessels, and the comparatively slight injury to bones and joints. It remains to be seen, however, whether the modern small arms are as dangerous as the old patterns in actual warfare.

Very truly yours, W. H. WILDER.

The Herf & Frerichs Chemical Co., of St. Louis, manufacture a line of Chemicals noted for their purity. When prescribing standard chemicals specify, H. & F.

NOTES FROM PHILADELPHIA.

Dr. John Guiteras on Yellow Fever in War Times.

Dr. John Guiteras, whom Dr. William Osler regards as the chief authority on yellow fever in this country, recently gave out the following public interview: "At the present time there is not the slightest danger to be apprehended from yellow fever in Cuba. The island is usually free from the disease till the middle of June or later. Then the yellow fever season sets in and continues until the last of October. It is at its worst during the months of August, September, and October.

There has been a lot of discussion concerning the prevention of the disease by individual precautions. These measures of prevention for individual cases are worthless. The disease ought not to be treated from the standpoint of the individual, but from the standpoint of the mass.

The most important measure to be taken to prevent the spread of yellow fever in the invading army would be general measures affecting the distribution of troops, the manner and place of landing, the location of distributing centers of supplies, and the selection of sites for the establishment of camps. In fact, there is nothing to prevent yellow fever except keeping the men out of the foci of infection, and this can be done by the general measures above mentioned. Outside of the yellow fever in the seaport towns of Cuba, we may consider the climate as a salubrious one. Malarial fevers and dysentery are not more prevalent there than they were in the civil war.

"A very important factor in the protection of our troops lies in the shipping of all our supplies directly from the United States. Havana and the seaport cities in Cuba are really the danger-spots of the disease. The interior of the island is free from yellow fever. Havana is always infected, and it will take several years to remove the effects of bad sanitation in that city. Spanish troops quartered there carry the disease wherever they go."

Fighting Philadelphia Doctors.

If the government needs physicians for her volunteer army, there will be many to answer from Philadelphia. All of the medical colleges will be represented, probably, in the faculty, students and corps of trained nurses.

The University of Pennsylvania has taken the leading part, as she is stirred to greater enthusiasm from the fact that Osgood, the athlete who lost his life for Cuban liberty, was a graduate of this college.

Dr. John Guiteras, Professor of Pathology, is a prominent member of the Cuban Junta, and is proud of his men.

A graduate of the university, after extending the invitation to other colleges, has almost enough men to form two regiments.

Dr. Martin H. Williams, Chief of the Surgical Clinic of the Jefferson Medical College, with four other physicians of the staff and eight trained nurses, have offered their services to the government. It is their intention to be organized into a corps, and to work under one leader; and it is said they would like to take charge of some military hospital in Cuba.

A rousing meeting was recently held at the Medico-Chirurgical College in regard to the subject of war, and the following were, among other resolutions, passed:

"*First.*—We hereby tender to the government of the United States, and to the governor of the State of Pennsylvania, the use of all our facilities in the hospital, free of charge.

"*Second.*—Medical and surgical staff of the hospital offer their services for the treatment of sailors and soldiers in the hospital, free of charge."

After the resolutions were passed, over a dozen physicians volunteered to go. Nine trained nurses also signed the resolutions, and will go if needed.

PHILADELPHIA WILL CARE FOR HER INSANE PATIENTS.

When the committee of the Department of Charities and Corrections made their report, a short while ago, in regard to the overcrowded condition of the insane wards at the Philadelphia Hospital, doubtless there was great surprise; for it was stated that many patients actually had to sleep in the aisles. This has now been overcome by the appropriation of $60,000 for the erection of two new wards for the insane department.

A Text-Book of Materia Medica, Therapeutics and Pharmacology. By GEORGE FRANK BUTLER, Ph. G., M. D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Chicago. Octavo, pp., 858. Philadelphia: W. B. Saunders, 1896. Price, $4.00.

Butler's Materia Medica supplies the student with a clear, concise, practical text-book, adapted for use in the class room. The arrangement is philosophical and practical. Special attention is given to the pharmaceutical section. It will be noticed that "*untoward action*" and "*poisoning*" are treated under separate heads. In the former are recorded the effects of *medicinal doses* in developing certain symptoms dependent upon individual susceptibility, not necessarily producing toxic effects.

An American Text-Book of Genito-Urinary Diseases, Syphilis and Diseases of the Skin. By L. BOLTON BANGS, M. D., and W. A. HARDAWAY, A. M., M. D. Royal octavo, pp. 1229, Philadelphia: W. B. Saunders, 1898. Price, in cloth, $7.00; sheep or half morocco, $8.00. For sale by subscription only.

The object in making this book was to furnish the physician and student with a modern one-volume treatise covering the same ground that heretofore has required the possession of three or four costly works. A

cursory examination of the contents will disclose many points of excellence and superiority. Every care has been taken to present all that is latest and best on these closely-related subjects; and the need and importance of such a book can hardly be disputed.

A careful and judicious condensation has enabled the authors to cover an extremely wide range of subjects, and has also increased the value of the book to the user by rendering the matter practical and accessible as well as modern and authoritative.

The chief points of excellence may be summed up as follows:

First.—Thoroughness, accuracy and modernness, from the number of authoritative contributors.

Second.—Practical utility, from careful insistence on the importance of diagnosis and treatment.

Third.—Convenience of arrangement for reference and consultation.

Fourth.—Fullness and excellence of illustration and general typographical beauty.

Fifth.—It covers in a single volume ground that heretofore has required three or four costly volumes.

We feel confident that this book will prove one of the best of the series of American text-books.

The Diseases of the Stomach. By WILLIAM W. VAN VALZAH, A. M., M. D., and J. DOUGLAS NISBET, A. B., M. D. Octavo, pp. 674. Philadelphia: W. B. Saunders, 1898. Price $3.50.

This book will be found, above all, a practical one. Although constituting a valuable contribution to scientific medicine, it is intended primarily as a working guide for the student and practicing physician. To this end the chief attention is devoted to the most approved methods of diagnosis and treatment. As you will see, space is not wasted by an extended discourse on anatomy, nor by a theoretical discussion of general pathology; but beginning with a classificatory introduction, a chapter is devoted to diagnosis and diagnostic methods, and one to general medication and treatment. After this, the various diseases are taken up in order and treated in a logical way, beginning with etiology, and passing through the phases of pathology, clinical description, diagnosis, differential diagnosis, prognosis, and treatment.

The methods of examination given and the apparatus recommended, while sufficient for special advanced stomach work, are not too elaborate and complicated for the general practitioner. Indeed, the needs of the practicing physician are kept constantly in mind throughout the book.

Varalettes.—This is the name given by the London house of Alfred Bishop & Sons, Limited, to their compressed effervescent tablets. The house is an old and well-known one. We learn that it was among the first to make effervescent tablets, and that its products have always been regarded as unexcelled.—*N. Y. Med. Journal*, April 23, 1898.

OUR PHARMACEUTICAL FRIENDS.

Mr. R. H. Wehrheim.—For six years Mr. R. H. Wehrheim has been in charge of the prescription department of the Leland Miller Drug Company. His many friends in the profession will learn with pleasure that Mr. Wehrheim has just accepted a position with John Wyeth & Bro. of Philadelphia. "Bob," as he is popularly known, is a thorough pharmacist, a graduate of the St. Louis College of Pharmacy, and will no doubt make a successful detail man in his new field. We understand that he will do work in the State of Pennsylvania.

Mr. Adolph M. Fincke.—Mr. Adolph M. Fincke, formerly with Allen & Geiger of this city, has been added to the local forces of Parke, Davis & Co.

Mr. Fincke is doing detail work on the south side.

Mr. L. S. Rutter.—Mr. L. S. Rutter, who has for several years represented Keasbey & Matteson in this territory, has severed his connection with that concern. He recently purchased an interest in the Phenoline Company, and will devote all his future efforts to pushing their preparations.

Mr. G. E. Remick has always been a familiar figure at medical conventions, especially those held in the States of Missouri, Illinois, Wisconsin and Iowa. Representing the Phénique Chemical Company, Mr. Remick has made himself a welcome visitor in almost every doctor's office east of the Mississippi river. By a recent change, he assumed a position for which fifteen years of active business experience eminently qualify him—that of general manager of the company he has so long and so faithfully represented. Campho-Phénique Powder and Gárofen are the products and results of Mr. Remick's chemical research.

Dr. H. C. Duering is a very popular salesman. The doctor visits the physicians in Illinois and Missouri in the interest of Allen & Geiger of this city.

Mr. S. G. Smith.—Mr. S. G. Smith, of Newark, N. J., representing Gray's Glycerine Tonic Compound, has recently called upon the physicians of St. Louis.

Mr. John Crouch is manager of the Sanguiferin Pharmacal Company.

PUBLISHER'S DESK.

M. A. Goldstein, M. D., St. Louis, editor *The Laryngoscope*, Professor Otology, Beaumont Hospital Medical College; Consulting Aurist Alexian Brothers' Hospital, St. Joseph School for the Deaf, and Terminal R. R. Association, published in *The Laryngoscope* of March, 1898, the following editorial, entitled:

OFFICE DISINFECTION.

Much has been written concerning the precautionary measures to be employed by sanitary boards and health officers in subjecting all public places to frequent and thorough disinfection. Many of the energies of our medical profession have been well spent in this direction, and the greater regard now paid for cleanliness in our railroad stations, street cars, theaters, jails, and other public places much frequented, is the result.

Perhaps it may be well to add a suggestion which might be of interest to the large class of specialists whose principal work is confined to office practice.

The reception-room of a physician is quite a cosmopolitan place, particularly in the metropolis. Here extremes often meet: aristocracy and poverty; cleanliness and filth; the delicate odor of violets, and the strong, penetrating smell of garlic.

Seated side by side in the office of the otologist and laryngologist may be found the ozœnic nose, the putrid, suppurative otitis media, the diphtheritic, the consumptive with laryngeal complications and incessant cough and expectoration, the patient with tonsilitis and his young neighbor, whose whooping-cough determines the diagnosis even before his entrance to the consulting-room.

It might be interesting to follow up this line of thought into its possible consequences. Suffice it to say, however, that many of our ablest colleagues look upon the contamination and infection possible in their reception and consulting-rooms with utter indifference.

Only last week I reduced a hypertrophied turbinate with the galvano-cautery in an otherwise thoroughly healthy girl; during the same day I had previously treated three or four cases of tonsilitis and one case of diphtheria. When my young patient of the galvano-cautery presented herself for further treatment, twenty-four hours later, she had developed a typical bilateral tonsilitis, the first involvement of that character which she had ever had. Is it not reasonable to suppose that the operative interference in the nose diminished the natural resistance of the mucous membrane of the naso-pharynx and pharynx, and that the exposure to the contagious influence of tonsilitis and diphtheria found a fertile field.

With the establishment of antiseptics the physician has been taught to appreciate the value of careful disinfection and sterilization of his instruments, appliances and dressings. Of what value is the thoroughly sterilized tongue depressor or nasal speculum on a susceptible mucous membrane, when the air of the consulting-room is laden with aerobic micro-organisms galore?

Perhaps the fumigation of our offices seems an unnecessary precautionary measure, but the actual experiment of bacteriological examination of the waiting and consulting-rooms has been undertaken with convincing results. Of this, more anon.

Thus far the methods of fumigation have been accompanied by so many unpleasant features and details that frequent repetitions would be inconvenient. With the introduction of formaldehyde, however, a clean and efficient fumigation has been made possible.

The small formaline lamp, recently introduced by Schering and Glatz, with the accompanying formalin pastilles, is the method of deodorizing and disinfecting which I now employ every two or three days in my office. Formalin is one of the most energetic disinfectants known, and a small quantity also suffices to completely destroy the foul odors so prevalent in the office.

In conclusion, I would emphasize that disinfection of the atmosphere is of almost equal importance with sterilization of our instruments.

In view of the fact that cod-liver oil in its crude, refined or emulsified form induces atony of the digestive organs and hypertrophy of the gastric and intestinal mucous membranes, it is evident that the easily-digestible and assimilable Hagee's cordial, containing as it does the true active principles of the oil, is the most eligible succedaneum for this oil.

Progress Comes Only by Improvement.—In the treatment of pneumonia, in addition to an antipyretic, we must have an analgesic. Gárofen is both an antipyretic and analgesic, and thus reduces the fever, relieves the pain, and quiets the restlessness so often seen.

The most thorough and careful clinical tests, both in health and disease, by some of the most brilliant men in the medical profession, have established beyond all doubt the value of gárofen as an analgesic and antipyretic. Added to this is the unprecedented and almost unexpected unanimity in the verdict of those who have and are using it. Letters of recommendation and testimonials, unsolicited, have come from all quarters; and that among them should not be a single criticism or complaint, seems almost incredible.

It is absolutely non-poisonous, and in every way reliable.

It has a wide range of application.

It does not depress the heart below normal, even when used as an antipyretic. It is especialy valuable in heart lesions.

The consequent sensation of exhilaration is not more than would naturally come from the sudden release from pain.

In cases accompanied by pain where a particular treatment is clearly indicated, it may be readily combined with such treatment.

It is most useful in the treatment of exhausted conditions of the nervous system.

Typhoid fever is one of the conditions where the ordinary symptoms directly indicate the use of gárofen to control the temperature by its action on the nerve centers.

It is an appropriate and even more certain, yet harmless, remedy to

substitute for morphia, or the coal-tar analgesics, in any case where these drugs seem to be indicated.

Gárofen affords almost instantaneous relief in dysmenorrhœa and painful menstruation.

Sanmetto the Standard Preparation for Genito-Urinary Diseases.—For some years I have been a very warm admirer of sanmetto, and have found its action marked and well defined in the cases wherein I have used it. In cases of prostatitis, with loss of virile power in elderly men, I find its action superb. In chronic specific urethritis, cystitis, and all irritable conditions of the urinary tract, I find sanmetto very efficacious. I do not hesitate to recommend it as a standard preparation in cases where the action of pure santal and saw-palmetto is indicated. JOS. MARSHALL, M. D.
Durand, Mich.

Ferratin in Anemic Dyspepsias.—Dr. Elbridge G. Cutler, of Boston, in a very excellent paper entitled "General Remarks on Gastric Dyspepsia," read before the Massachusetts Medical Society, June 8, 1897, and published in the Boston *Medical and Surgical Journal*, September 9, 1897, advises the use of ferratin to increase the hemoglobin. In examining the patient, "the relation or dependence of dyspeptic conditions on other local diseases or general disturbances" should be found. The lungs and the urine should be examined weekly, and the patient weighed; and if diet, control of daily life, etc., do not increase the hemoglobin, then ferratin should be used to aid the other measures.

Polk's Medical and Surgical Register of the United States and Canada is now undergoing its fifth revision. Physicians who have not given their names to the canvassers are urged to report to headquarters at once, giving full information. Address R. L. Polk & Co., Detroit, Mich.

We desire to call the attention of our readers to the Missouri Commercial Laboratory. From this laboratory all the standard test solutions may be obtained· urinalyses are made by the able physician-chemists in charge; all kinds of chemical and physiological analyses are also made.

Medical Excursion in June—Denver to Salt Lake City.—The medical excursion in June will leave Denver for Salt Lake City—the Zion of the new world—on the last day of the meeting and the two successive days via the Rio Grande Western Railway, in connection with the Denver & Rio Grande and Colorado Midland lines. The rate will be but $18.00 for the round trip, offering a trip of 1500 miles through the Rocky and Wasatch Mountains. No European trip of equal length can compare with it in grandeur or wealth of novel interest. Salt Lake City and vicinity is one grand sanitarium. The great Salt Lake or Dead Sea of America, with its magnificent bathing resort, the hot and warm springs, drives, parks, canyons and reserves, are all located in or about the city. Send two cents to F. A. Wadleigh, Salt Lake City, for copy of pamphlet.

Jambul in Diabetes.—This ancient drug has been used for the treatment of diseases which are now known by the names of diabetes and glycosuria since the year A. D. 775; and we have record of its uninterrupted use in India for the full period of twelve centuries.

Modern scientific medical observers do not all agree on the value of it as an active therapeutic agent for the treatment of this disease. It is safe, however, to assert that the majority of these observers have reported in favor of its action. The greatest objection was found with the various forms in which it was prepared for medicinal use. Some discarded all the liquid preparations offered and made use of the powdered seeds. Even that method did not give the desired results.

Chemists of high authority have been able to isolate white crystalline substances—an alkaloid—from the bark and seeds of the Eugenia jambolana. It has been decided that this alkaloid (eulexine) contains the active remedial substances. With such facts, it only remained for the question of pharmacy to be accurately solved to place at the command of physicians this drug in an active form for the treatment of diabetes.

All these questions have been solved, and liquor eulexini aromaticus will be found an active therapeutic agent for the treatment of diabetes mellitus.—*New England Medical Monthly.*

Railroad Rates Beyond Denver.—Many of our readers will probably be interested to know the expense of a trip to points beyond Denver. In connection with the meeting of the American Medical Association, the Denver & Rio Grande Railroad will make very low rates from Denver, Colorado Springs and Pueblo to all points in Colorado and to Salt Lake City and Ogden, Utah, the rates to a few of the principal points being as follows:

Aspen	$12 00	Lumberton (Pagosa Springs)	18 05
Barranca (Ojo Caliente Hot Spgs)	16 60	Manitou	3 00
Buena Vista (Cottonwood Hot Spgs)	6 00	New Castle	12 50
Canyon City	6 00	Ouray	14 80
Colorado Springs	2 30	Poncha	6 30
Doyle (Waunita Hot Springs)	9 30	Pueblo	4 65
Durango	20 90	Rico	18 15
Glenwood Springs	12 00	Salida	6 00
Grand Junction	15 00	Silverton	20 90
Gunnison	8 95	Telluride	16 90
Lake City	12 65	Salt Lake City	18 00
Leadville	8 00	Ogden	18 00

Tickets to points in Colorado at the above rates will be on sale on the two days following the closing date of the meeting. Tickets reading to Leadville and west thereof, and to territory south and west of Salida, will be limited to ten days from date of sale and will permit stop-overs. To other territory, tickets will be limited to continuous passage in each direction and will be good for return passage within five days from date of sale.

For parties attending the American Medical Association meeting, tickets to Salt Lake City and Ogden will be on sale on the closing date of the meeting and on the two days following, good to return twenty days from date of sale. Stop-overs will be allowed within a transit limit of ten days.

THE TRI-STATE MEDICAL JOURNAL AND PRACTITIONER.

ACTIVE COLLABORATORS:

DR. BAYARD HOLMES, Chicago.
DR. JOSEPH EASTMAN, Indianapolis.
DR. C. S. CHASE, Waterloo, Iowa.
DR. THOMAS O. SUMMERS, St. Louis.
DR. A. VANDER VEER, Albany, N. Y.
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DR. PINCKNEY FRENCH, St. Louis.
DR. F. REDER, Hannibal, Mo.
DR. THOMAS HUNT STUCKEY, Louisville.

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ORIGINAL ARTICLES.

RETRO-DISPLACEMENTS OF THE UTERUS.[1]

By F. A. DUNSMOOR, M. D., of Minneapolis, Minn.,
Professor of Clinical and Operative Surgery in the University of Minnesota.

IN BEGINNING this paper, the writer yields to the temptation to relate the report of an observer upon the progress of science, regarding the reason for the ability of the fly to walk upon the ceiling, who stated that, when he was a boy at college, it was definitely announced that the fly possessed a vacuum in the bottom of his foot, and, by expelling the air therefrom, was enabled to retain the inverted position in spite of the laws of gravity. Going back twenty years later to the same hall of learning, he was astonished to find that the teaching was that the fly had in his foot glands which exuded a sticky substance that enabled him to walk bottom side up. Returning at the present day, to his still further astonishment, he discovers that the bottom of the fly's foot is covered with millions of hair-like projections, and it is due to capillary attraction alone that the fly proceeds with his locomotion in this absurd posture. The observer pauses here to remark that the scientists have had time enough to settle this question, and, God knows, they have had flies enough.

[1] Read before the Tri-State Medical Society of Iowa, Illinois and Missouri, at Dubuque, Iowa, April 6, 1898.

So in our article, from the general practitioner to the gynæcologist, there is no field so prolific, either for occupation or finance, as the uterine displacements under consideration. From the abundance of material and the ready submission of the patient to any procedure suggested by the medical adviser, we should long ago have arrived at a definite solution of at least the best surgical procedure for the relief of the symptoms resulting from the conditions of this misplacement and the retention of the uterus in its correct position. If we first establish in our mind the normal position of the uterus, and how much it varies in perfect health, we may the sooner arrive at what may be called pathological displacements in either direction. The writer believes that in a mature woman, in the erect posture, the longitudinal axis of the uterus will be nearly horizontal; the deviations from this line being such that the fundus may be slightly lower than the cervix when the bladder is empty, and a trifle higher when the bladder is overdistended.

The majority of digital or instrumental examinations are made with the patient in dorsal position, when the superimposed pressure of the abdominal viscera is reduced to a minimum, while the bladder and its contents continue to displace the fundus slightly upward or backward. The overfilling of the rectum and the colon with hardened fecal matter may as materially deviate the uterus from its normal position. These views, with the fact that the normal uterus possesses a slight anterior curve in its longitudinal axis, make it easy to understand why many practitioners find an anteversion, which the writer fails to recognize as a pathological condition.

Briefly, we all recognize as the important supports for the uterus the utero-vesical and the cellular tissue, uniting the anterior wall of the uterus to the bladder—the sacro-uterine ligaments being of service in preventing prolapse and retaining the cervix in the posterior portion of the vagina; and the broad ligaments being prominent in preventing lateral deviations. We believe that the uterus is *not* retained in a normal position by reason of cervix, or os, resting on the floor of the pelvis. The pressure of the intestines assists in maintaining the uterus in its normal position, and also in preventing its return to such position, once the fundus descends or bends posteriorly. The importance of the muscles at the vaginal outlet—and, indeed, of the entire perineum—in holding the uterus in position, we believe, has been grossly overestimated.

We are sure that the general practitioner, even oftener than the gynæcologist, sees cases where the perineum has been destroyed, so that the rectum and the vagina have a common outlet, with the uterus in a perfectly normal position. The contrary has been observed, when there has been a complete retroversion or retroflexion, with the most distressing symptoms in women who have normal perinei, and, indeed, too often in virgins and sterile women.

As to etiology, trauma and accidents while straining or lifting may immediately provide retroversion. In those deviations known to be congenital, the cause must be owing to arrest of development of certain of the elements that go to make up the uterus, or the destruction by nutritive disturbances, pressure changes, abnormalities of the Muellerian ducts, and,

possibly, physiological maternal impressions while in utero, of which the writer has no satisfactory knowledge.

As to second class, anything which vitiates the tone of the uterine structure may produce sufficient weakness of the supporting ligaments, and be also cause for retroflexion. Abortions, septic infiltrations, and lacerations of the cervix, induce such tissue changes, and make the body of the uterus susceptible to retroversion, which surely precedes and nearly always accompanies retroflexion. Retroversion is frequently present when the uterine body itself is perfectly normal, but the bladder and the rectum have been overfilled.

If such condition is associated with that bane of the century, pernicious constipation, and the consequent stretching of the utero-sacral ligaments, or the patient makes straining effort, either at lifting or in attempts at defecation, we have a reasonable theory for the beginning and maintenance of a retroversion, and, by a continuance of the same causes, a rapidly following retroflexion. Most writers and teachers assert that pelvic peritonitis, salpingitis, adhesions in Douglas' *cul-de-sac*, endometritis, subinvolution, stenosis of internal os, obstructions to menstruation, anemia, and general muscular relaxation, are among the causes of these displacements. While we all unite in assuring our patients that the retroflexion which is present produces obstruction of the cervical canal, endometritis, congestion of the womb, stenosis, straining at stool, salpingitis, local peritonitis, anemia, and exhaustion, with the reflex neurotic symptoms.

This similarity of cause and effect suggests to my mind an occurrence in a class in physiology in one of our public schools. The teacher asked the pupil: "Where does the hen come from?" Pupil: "From the egg." Teacher: "Where does the egg come from?" Pupil: "From the hen." Whereupon a little boy in the back of the room, who had been listening, snapped his fingers and called out: "Teacher! Say, teacher! How does that game begin?"

If we were undecided as to which were causes and which were effects, it would not be the first instance in the science of medicine where treatment for the relief of symptoms has been adopted for the cure of the disease. Many of those who pose as conservatives or specialists in other departments, particularly neurologists and the oculists, inform us that there are many women who have retro-displacements without symptoms, and the knowledge of the deformity has been brought to the patients by some ambitious gynæcologist. I wish to state that it has never been my good fortune to find a retro-displaced uterus without symptoms which, to my mind, were the result of this pathological condition, although I have frequently found a patient with displacements who had not noticed that there was any abnormality with the uterus, attributing her trouble to other sources. It is also true that many an individual does not know that he is color-blind, or has distorted vision, until symptoms reveal the fact to the intelligent oculist, and that many of the patients with catarrh are cured when the expert rhinologist saws off a part of the deviated septum. Also that patients who are sure that they have serious brain lesions, and have paid good fees to the neurologist, have been cured by taking diastase.

It must not seem strange that retro-deviation is overlooked as a cause of many reflex symptoms, when the writer truthfully states that he has

never found a stone in the bladder that it had not previously been pronounced absent. We shall find some symptoms like backache, painful menstruation, profuse leucorrhœa, pain on walking, straining at stool with rectum empty, sterility, abortions, dragging sensation, vesical irritability, occipital headache, melancholia, and so on through the gamut of nervous disturbances and gastric derangements, where malposition exists.

DIAGNOSIS.—The diagnosis is not always so easily made, since prolapsed ovary, ovarian tumor, hardened feces, abnormal growths of the rectum or sacrum, or small fibroids, may mislead the examiner. An "anteflexed and retroverted" uterus is occasionally mistaken for retroflexion. Such a case was brought to me in the present month; and the subjective symptoms of the latter are ofttimes similar to those of the former. The bimanual examinations and the sound carefully introduced within the uterine canal establishes the diagnosis.

TREATMENT.—All recognize the desirability of returning the uterus to its proper position, and keeping it there. When there is perimetritis or adhesions, it is often impossible or unadvisable to forcibly replace the uterus without opening the abdomen through the anterior abdominal wall, or through the vagina, not only to facilitate the division of the adhesions, but also to control the possible hemorrhage, to establish drainage, to remove or resect diseased ovaries; in short, do what is required. It must be remembered that when an adhesion has been divided, nature's own effort toward a cure makes the reunion of the divided parts at the earliest possible moment; therefore, it is necessary to separate, as far as may be possible, those surfaces which have been connected by pathological adhesions.

Whatever method may be employed in restoring the organ to its normal position, if there has been leucorrhœa, endometritis or allied conditions, it would be advisable to dilate the cervical canal, curette the cavity, and apply iodine to the denuded surface. If retroversion alone be present, the reposition can be accomplished by putting the patient in knee-chest posture, retracting the perineum, crowding the cervix into the hollow of the sacrum, and with the left hand over the abdomen push fundus beneath pubes. Ofttimes this can be accomplished with the patient in dorsal position. In slender women, with thin abdominal walls, suffering with extreme retroflexion, with firm adhesions, it is possible by the bimanual process to separate all of the adhesions between the uterus and the rectum and by crowding the fingers of the left hand between the promontory of the sacrum and the uterus, and with the thumb of the right hand in the vagina, and the index and, possibly, the second finger in the rectum, make such manipulations as shall turn gradually and crowd the organ into its normal position.

In such cases, after curettage and application of iodine, the introduction of as large a glass stem as can be successfully fitted to the canal without touching the fundus will assist in maintaining the position, particularly if the vagina be filled loosely with iodoform gauze anterior to the cervix. The latter may be changed every four days until all signs of inflammation have subsided, when Hodge's pessary may be introduced and the antiseptic douche employed. While patients are in bed, following any of these manipulations, it is well to have them lie upon the face, or at least upon the side, turning as much as possible toward the abdominal wall.

Gratifying success often follows a method of treatment which requires more time and patience, but which avoids that *bête noire* of timid females, a surgical procedure. It consists of massage at site of adhesions, followed by an application of an elastic wool tampon, saturated with boro-glyceride, which, in turn, is followed by graduated layers of wool or cotton to support the tampon firmly in its position. This assists in a rapid absorption of the exudate. The chemical affinity of the glycerine for water makes it a valuable aid in this procedure.

Instead of relying chiefly on hot vaginal douches, even if prolonged, to assist in reducing the prominent inflammatory conditions, I am in the habit of directing the use of rectal enemata, of normal salt solution, as hot as can be comfortably borne, to be retained as long as possible.

In operative treatment comes the greatest diversity of opinion from the patients, specialists, and general practitioners. The Alexander method is certainly applicable to all these cases of retroversion or retroflexion which are uncomplicated and may be controlled or held in place by any pessary. It seems desirable not to employ this method where there is salpingitis, endometritis, perimetritis, or adhesions.

The steps of the operation, as described by the author, have not been materially improved upon at this date, and may certainly be relied upon to govern the technique at this time. Against the operation, it may be stated that it is liable to the same septic contamination as any other operation which is made for maintaining the uterus in position. Dr. De Garmo has, up to 1898, operated for hernia upon over fifty patients who have had Alexander operations. Another operator in New York reports having five patients, in the month of January of this year, with hernia following the Alexander operation; and the writer has seen a sufficient number to know that this disaster is not uncommon, while experience shows that hernia occurs more frequently following operations which involve the inguinal canal.

Second, "ventral suspension." By which we mean those steps which result in the formation of a ligament extending from the peritoneum of the uterus to the peritoneum of the anterior abdominal wall. The operation for ventral suspension has very properly superseded the earlier operation for ventral fixation, in which a portion of the body of the uterus was practically wedged into the median incision. We have all found that fixation of the uterus is not desirable, and that the plan which permits the position nearest to normal, and the greatest freedom of movement, must necessarily commend itself to the intelligent operator or patient.

Hence, the adhesions of a small portion of the peritoneum, from the anterior abdominal wall in the median line immediately adjacent to the bladder, or to the peritoneum of the uterus on its anterior surface, slightly below the line, dividing its anterior from the posterior surface, must be the favorite point of suspension, for the following reasons: We have found, that shortly after union has taken place, that the site of the adhesion becomes a band or cord, which gradually lengthens and permits movement of the uterus in any direction to the limit of its length, and allows it to follow the movement of the bladder or rectum. It does not interfere with the progress of pregnancy, in contradistinction to the results which follow the faulty adhesions upon the posterior surface of the uterus to the mural

peritoneum in this vicinity, and which, I need not say, have been disastrous in more than one case, sometimes making the orpo operation necessary.

I believe that no suture other than catgut should be buried here, since, in order to permit the elongation of the ligaments, it is necessary that no silk or silk-worm gut, or any inelastic foreign material, be left at the point of union. In cœliotomy for ventral suspension, as for any other reason, there is always possible the danger of producing adhesions in undesirable locations following such slight abrasions of the delicate peritoneum as may be produced by handling, by the fingers, or by the application of gauze sponges, and more certainly if either are moistened by antiseptic solutions.

The patient who has the uterus suspended by the ligaments usually reports twinges of pain occurring from time to time when some sudden movement, lifting, or some change in posture, puts a strain upon the supplemental ligament. Extreme care is required in every case where the abdomen is entered, by whatsoever point, to prevent omental adhesions to the site of the operation, which are often the cause for darting pains in that region.

The method of vaginal fixation which is so warmly advocated by Dr. Vineberg and Dr. J. R. Goffe necessitates vaginal incision anterior to the cervix, and the most careful and painstaking dissection between the uterus and the bladder, and is associated with all the difficulties which attend this maneuver in vaginal hysterectomy, among which are the dangers of wounding the ureters and the uterine arteries.

I cannot speak of this operation from personal experience, since my operations through the anterior wall have been limited to vaginal hysterectomy and drainage of cysts. But in the hysterectomies I have found the greatest difficulty, in any case, in delivering the fundus anteriorly, and really impossible with safety, when there were infiltrations or adhesions posteriorly. I therefore, long ago, adopted a rule to make such delivery or division of adhesions only through the posterior *cul-de-sac*. Vaginal operation would seem to be limited, at least, to those cases which might properly be done by the method of Adams-Alexander.

There has been objection made to this operation, to the Wylie-Mann method, and even to the Adams-Alexander operation, that when sufficient strain is put upon the round ligaments the cornua of the uterus are too sharply bent forward; and it would seem, theoretically at least, that where the round ligaments would be stitched together across the front of the uterus, or to the single incision anteriorly, that there would be great restriction to the development incidental to pregnancy. Dr. Vineberg, himself, admits that out of four persons who had become pregnant since having this operation made, two miscarriages had occurred; and it is quite possible to infer that the above mentioned condition may have been the cause of the abortions.

If those operators who intend following the method of Alexander should advocate the vaginal incision, for the purpose of freeing the uterus from the adhesions, in order that it might be freely suspended by the distal shortening of the round ligaments, it would seem much better to finish the operation through this vaginal incision, providing that time and experience prove that such fixation is efficient, and does not tend to induce abortions in pregnancies following the operation.

It is the habit of the writer when making an operation for the ventral suspension of the uterus, for any retro-deviation, to first curette the cavity of the uterus and apply iodine to repair whatever laceration there may be at the cervix, and, also, make such plastic operation for the support of the bladder, and upon the posterior vaginal wall, as may be necessary, making the suspension last if there are adhesions. When the peritoneum is ruptured, and the posterior vaginal wall has lost its tone, the denudation is carried to rather an exaggerated width, the extreme length of the vagina ending convexly, in the posterior *cul-de-sac*.

The wound is united by three layers of sutures, in the following manner: Using Boeckman's catgut, the curved needle is introduced one-half inch to the right of the median line, goes directly across, emerging for one-half inch in the median line, and is inserted in like position upon the left side and stitch tied. In like manner this is repeated four times to each inch, depressing the median line until we get to the muscular portion at the outlet. For the second row of sutures, again the needle is introduced at the uppermost portion, about one-quarter of an inch from the mucous membrane, and is carried to like point upon the left side and tied. The next stitch is introduced within about one-eighth of an inch from the first, but goes around the first layer of sutures, piercing the depressed part of the median line, and includes all of the denuded tissue within its grasp, save one-quarter of an inch on either side. The next stitch approximates a point like the first, and so on alternately, until the vaginal outlet is reached. The final series of stitches is the silk-worm gut. The first stitch simply abutting the edges at the uppermost portion of the vaginal mucous membrane, at the opposite sides. The second stitch girdles the entire denuded portion, barely avoiding entering the rectum. This is done to the vaginal outlet, every alternate stitch approximating the edges of the vaginal mucous membrane, exactly as if it were a flap in an amputation.

This method materially elongates the vagina, antero-posteriorly, and narrows it from side to side. The silk-worm gut stitches include a sufficient amount of the pelvic fascia to overcome the deficiency which necessitated the operation. The silk-worm stitches are left in position from twenty to thirty days.

This method refers particularly to the maneuver which is applied above the sphincter and levator muscles. If there has been a complete rupture of the perineum, involving the sphincter of the anus, the first stitches are introduced at that point by the method of Emmet, after which the procedure is as if the laceration extended through the vulva only.

To summarize: retro-deviations are pathological conditions, and the local symptoms immediately resulting should be treated as certainly as if no operation were to be made. Those retro-deviations which may be replaced and maintained without surgical procedure should be treated by pessary, tampons, massage or posture.

Retroversions and retroflexions without adhesions, uncomplicated, in which the pessary is undesirable, or are not retained in position after replacement, are best treated by the Alexander operation. Those displacements which are complicated by adhesions, pelvic inflammation, diseased ovaries or tubes, adventitious growths, require cœliotomy, and, preferably, ventral suspension. The ligament in which case should be made suffi-

ciently low on anterior surface of uterus as to not interfere with the development of possible pregnancies.

The operation of vaginal fixation will probably be done only by a few experts, who wish to demonstrate the efficacy of a theory of support by the round ligaments, without surgical band or ligament posterior to the bladder. Least of all, the support to the maintenance of the normal position of the uterus is the perineum, but when ruptured, and the patient is asleep, the operation for its restoration should be made at the same time as that for the maintenance of the normal position of the uterus, and in such manner as shall not shorten the posterior wall of the vagina, but, on the contrary, decidedly elongate it, and narrow the vagina with sutures, which shall include the lower pelvic fascia, the stitches in the vagina being left from three to four weeks.

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By Dr. Warren B. Outten, of Saint Louis.

[CONTINUED FROM THE MAY ISSUE.]

CHAPTER IV.

Thoughts and Suggestions as Regards Reforms in a Bodily Way, Looking to the Correction of the Convivialist.——A Study of Life's Alkahest; Divers Opinions Concerning the Same, in Time Past and Present.——A Weakened Will Doth Beget the Saddest of Life's Plights.——'Tis Not Always, "Once Bit Twice Shy;" But, "One Sip a Hundred Try."——A Story of Lawyer L———, Who Said, "Yes, I know That I Have But One Soul, Out of That Soul Springs Two Wills: One is the Will of Weal, the Other the Will of Woe." Why Weaken the Will? Why is a Prodigy a Ruler of the World? Speculation is Much Like a Dog Who Bays at the Moon and Barks at the Stars, Because it is Its Nature Too.——The Story of Sir Kay, His Virtues and Follies, and Who Thought That His Mental Intensity Did Numb His Mental Strength: He Was Thus a Prey to His Sub-Conscious Self.——Pain and Will are Close Akin and are the Most Earth Earthy Functions, and Have no Place in Heaven or Hell.——Surroundings and Heredity are Inveterate Questions.——The Power of Drink on Past, Present and Future.——Suggestion and Credulity Make Men Martyrs and Fools.——Nay, if One Act Makes a Degenerate, Then, Indeed, is a Degenerate Easier Made Than a Sausage.——Aye, in the Drear Realm of Degeneracy, the Normal Ever Dies.——It Can Never be Proven That Buzzards Beget Birds of Paradise.——Vegge Go's Novel Opinion Regarding the Cure of Drink.——This Theme is Very Like Unto a Wheel Which Hath Neither Beginning Nor End, But Whose Spokes Tend to Tire.

NAY, to me it doth seem in verity that specious reason, calm argument, to a drunken man, is very like unto putting attar of roses upon garlic, to hide its pungent odor; for it is the wildest, crankiest waste. The attar is lost; the garlic but refreshed. So with thy talk to a drunken man: the brain suffers waste, and thy soul courts mephitic tarnishment.

Aye, in my function as scribe to this Cohort, 'twas my fate to meet many strange drunkards, and to fully test the virtues of soulful advice and hard argument. Aye, rarely, indeed, was this advice of any moment; for they did but interpret it as poorly as they did their own beplighted state. Reason may affect some drunkards; but argument with a drunkard means hostility; for their lethargic souls do but fail to interpret honest motive. Now, then, forsooth, if reason, advice, pleadings, and arguments, will not avail the drunken, besieged brain, what is left? Either do naught, or else inflict physical pain. Aye, thus do I say, that physical pain, well-timed, might turn this drunken mind to the true import of its besotted condition. Anon, if kindly circumstance could be but so arranged, for each and every maudlin convivialist, that, when in inebriation a certain stage was reached flagellation marked and pronounced would, with surety, come, the world would receive a benefit never conferred by any temperance reform. For many a crime and intolerable folly that degrade man might thus be prevented. Now, by my faith, I do but know that I would not harm a single soul except for its own good; but, yea, has it not been for ages past that freedom from punishment—mankind's toleration, excuse, and example—is the great begetter of drunkards? Let gracious nature but endow powered circumstance with a well-wielded, stinging whip, and this whip be inevitably applied every time a man verged upon drunkenness, and I do but honestly think that instances of free rollicking and boisterous drunkenness would, indeed, be few in number and far apart. A mind's anguish, regret, sorrow, or remorse, is but a vanishing thing; but powered physical pain, in certain given, would smartly court brilliant memory, and thus bring sensible action. This may be brutal; but the habit is more than brutal—'tis criminal. Nay, I believe with Syrus, that it is cruelty to the innocent not to punish the guilty. Aye, I do but hold that drunkenness is a waywardly guilty thing. Aye, beshrew me, once when I, in honest mission, did attend my work, the entry door of the waiting chamber was thrown asunder e'en without a warning knock, when in stalked a tall man of fine presence, well clothed, full bearded, with hat atop. He gravely moved, with fixed eyes, to where I stood, and as silent and erect as a statue gazed at me in fixed and pondered stare. I, voiceless, stood and gazed at him, and inward marveled, wondered what, forsooth, might be his freakish bent; when in suddenness, as he jumped e'en like a sprawling frog and gave vent to a yelling "Wough!" Perdie! I did but jump, and in protection stood; when he, in a voice of deepest power and thrilling force, said: "Fear not, thou chit! I did but try thy nerves. Where be thy mystic master? What ho! ye mystic shriners! What ho! I say! Come, yea, come quickly! Time flies! Come one! come all! but come ye must!" E'er I could reply, he began to pound the floor with heavy stamp and marched with soldier's tread, ever and anon giving vent thrice to "Wough!" "Wough!" "Wough!" Thus he went until Theodorus stalked into that noisy chamber. Not a word was said between the twain; but Theodorus, in strong, but stealthy step, faced him and caught his eye. And now this drunken man stood still and gazed at Theodorus. Not a muscle of his did seem to move; but Theodorus, in strained silence, approached nearer, nearer, still nearer. And it did but seem to me a long time. Then Theodorus did slowly raise his hands and pass them in front

of this strong man's face; then, in deepest whisper, said: "Lie down! lie down! I say; lie down! and give thyself rest!" Yea, upon the word, this drunken man did but slowly lay himself down, and into slumber went. From thence was he conveyed to a couch, and by direction was undisturbed until Theodorus did send him hence in sobered way. From this and many other happenings, it was announced that "The Will in Its Relation to Drink" would be the discussed theme. And that which follows but poorly shows the views held by the Cohort:

THEODORUS.—Life is feeling; and this feeling may glow in pleasure or throb in pain. Life's fruition lies in sensation and emotion. Aye, 'tis the highest function of a man's brain to court happiness, relish, and enjoyment, through the mind's gratification of agreeable sensation and emotion. Hence, all things tending to pleasurable sensation or emotion are inherently pursued by man; and wine fulfills a part of this function,

Theo Celsus.

so is eagerly and naturally sought. But too much indulgence in wine becomes dissipation; and dissipation is but that state where due restraint has not been placed upon a will. And dissipation, repeated too oft, becomes not only error in will, but a will diseased, or viceful habit. Man's habit and his nature are deeply akin; man's nature is an existence in space, while habit is a suggestion to this existence, and a will's action to this suggestion. Habit may be an unmade thing; but, oft repeated, is made or becomes an acting force—almost a part of nature; or, in other words, becomes necessity; and necessity in nature is a part of life. Nature's trend is growth; while habit's trend too oft is blight and death. To many, wine becomes life's alkahest—dissolves soul, mind, and body; and thus ends man. Zounds! there is naught which has been thought of by man—yea, ever known to man—which has received even a moiety of

the abuse that wine or intoxicants have. Aye, 'tis amazing to survey the dire extent of this abuse. Every crime in the ponderous calendar of crime, every vice in the immense actioned sway of vice, every ill-advised action in the myriads of actions, every baneful thought welling in teeming millions from a brain, every erratic or wayward fault—aye, even to the smallest folly—hath, at one time or another, been attributed to drink. Nay, it is true—indeed it matters not, in result, whether 'tis a mind's fault more than it is drink's; for a man and drink, in action combined, tend to forceful and pained result. To me it doth seem that 'tis will, and most oft 'tis will inherited, which acts. Intemperance in all directions is but a will's lack of due restraint. The effect of drink, inherited condition, enables drink to act its fevered part; and often drink, from inherited tolerance, is robbed of its errored way. A will inclined to inherited action when with drink, does make crime and all its sad array. Thus far it is good; anon, it will be of rare interest and worth to study what some have thought of drink as a guileless sin; others, as a deluding crime. Listen, then, to this! Hear, now, what Addison says:

"Wine heightens indifference into love, love into jealousy, and jealousy into madness. It often turns the good-natured man into an idiot, and a choleric man into an assassin. It gives bitterness to resentment; it makes vanity insupportable, and displays every little spot of the soul in its utmost deformity. Nor does this vice only deprave the hidden faults of a man and show them in the most odious colors, but often occasions faults to which he is not naturally subject. There is more of turn than of truth in a saying of Seneca's, that 'drunkenness does not produce, but discovers faults.' Common experience teaches us the contrary. Wine throws a man out of himself, and fuses qualities into the mind which he is a stranger to in his sober moments."

Nay, I do not believe this; for back in memory's soul bides the source of every lifeful action, drunk or sober. Yea, 'tis true, a man's brain is in its healthful time when, with ideas crowded, it can either act or restrain action, as the will sees fit. But a drunken brain is an overblooded one—in excitement active. Its will is but drunk; hence, restrains not bad ideas, but acts akin to impulse. Bad ideas are not made by wine; for they have lived ever in that mind, but have been, forsooth, fettered by good sense; and an intensed, weakened will doth only make them manifest. I cannot conceive how wine can be a creator; for itself is made. If the brain be not strong enough to stand the wine, it will fall, just as it will fall from stress of sickness, which as surely beget weakness, which weakness leads to bad and serious ends. Nay, have I not heard it said that the things we call cause must be endowed with power, to produce effect; and if this cause but be enhanced by conditions unknown, it will be hard to say which is the real cause and which is its effect. Aye, I cannot believe that inanimate causes have creative power; but it is a combination of effect with effect which produce cause. Yea, to measure the power of the cause by the effect is like unto a tangle—we cannot always unravel it.

But let us continue. Thus saith Cobbett:

"When this vice has taken fast hold of a man, farewell industry! farewell emulation! farewell attention to things worthy! farewell love of virtuous society! farewell decency of manners! farewell, too, even atten-

tion to person! Everything is sunk by this predominant and brutal appetite. In how many instances do we see men who have begun life with the brightest prospects, close it without one ray of comfort and consolation! Young men, with good fortunes, good talents, good tempers, good hearts, sound constitutions, only by being drawn into the vortex of the drunkard, have become, by degrees, the most loathsome and despicable of mankind. In the house of the drunkard there is no happiness for any one; all is uncertainty and anxiety. He is not the same man for any single day. No one knows of his outgoings or his incomings. Will he rise, or when will he lie down to rest, is wholly a matter of chance. That which he swallows for what he calls 'pleasure,' brings pain as surely as the sun brings morning. Poverty and misery are in its train. To avoid these results, we are called upon to make no sacrifice. Abstinence requires no aid for accomplishment. One's own will is all that is requisite; and if one has not the will to avoid contempt, disgrace, and misery, one deserves neither relief nor compassion."

PARA BLAR.—Zounds! "Will," saith Cobbett, "why, will is just as much this way as it is the other way." If the will does it, why the will is everything; for the will may be a man's weal or woe, his power or weakness; aye, true it is, a man's will is a man's fate. The will has appetite, as it has reason. 'Tis true, deeply true, that instinct moves will. But instinct is blind and untaught, and deeply a part of the soul, and maybe a soul's prime moving force. If, then, will be moved by instinct, it is certainly not moved by reason; and, again, if instinct be blind and reasonless, then it is, indeed, moved by a blind, relentless, unthinking force. If instinct makes a man a drunkard, then, indeed, has will a hard task to check and conquer instinct; and I do but believe that many drink from instinct. 'Tis sad, but, then, there are some things which very reason does not better; it does the drunkard little good to reason why he should not drink—a cure, here, being worth more than one's pains. It would be saviour to the drunkard, and give the world relief.

THEODORUS.—But, anon, here more followeth. Thus saith Sir Richard Steele:

"Were there only this single consideration, that we are less masters of ourselves when we drink in the least proportion above the exigencies of thirst; I say were this all that could be objected, it were sufficient to make us abhor this vice. But we may go on to say, that as he who drinks but little is not master of himself, so he who drinks much is a slave to himself. As for my part, I ever esteemed a drunkard, of all vicious persons, the most vicious. For, if our actions are to be weighed and considered according to the intention of them, what can we think of him who puts himself into a circumstance wherein he can have no intention at all, but incapacitates himself for the beauties and offices of life by a suspension of all his faculties? If a man considers that he cannot, under the oppression of drink, be a friend, a gentleman, a master, or a subject; that he has so long banished himself from all that is dear, and given up all that is sacred to him; even then think of a debauch with horror. But when he looks still farther, and acknowledges that he is not only expelled out of all the relations of life, but also liable to offend against them all, what words can express the terror and detestation he would have of such a condition?

And yet he owns all this to himself, who says that he was drunk last night. As I have all along persisted in it, that all the vicious, in general, are in a state of death, so, I think, I may add to the non-existence of a drunkard, that they have died by their own hand. He is, certainly, as guilty of suicide who perishes by a slow, as he that is dispatched by an immediate poison."

Nay, our ignorance is oft our life's suicide; and compared to it, drink is but a pigmied thing. For man hath ever many slow poisons within him. His living being teems with growing, thronging, hostile life, and self-made poison. Of the well is required effort to live; but to live rightly is only effort's constant might. Over the diseased mind, impulse oft becomes a blind power; and this blind power doth as truly beget blind and ill-considered effect. All quick fires are but quickly ended; and quick life doth surely mean naught but quick death. Aye, would it were, that naked horror had such fulsome power as to deter a man from acting in frenzied pleasure. But true it is, that pleasure and pain on the self-same stalk do grow. Aye, in life but shows this plain; for experience with drink when mixed with sweetened time, oft doth hide its bitterness. Gods! how quickly we forget pain, when pleasure hath preceded!

THEO CELSUS.—I beg your patience. Yet I would speak, because I have had experience; for, with a thumped pate, did I learn from Dominie that "experience keeps a dear school; but fools learn in no other."

Perchance, to some, 'tis sweet; to some, 'tis sad;
To learn that Experience is but Wisdom's Dad;
'Tis guide and tutor to fools, as well's the wise;
To the deaf, 'tis ears; to the blind, 'tis eyes;
'Tis the Mother of Science—the worthy matron of arts;
'Tis Life's able escort, and bides till Death it parts.

Experience with drink most oft finds a deluded pupil; for 'tis not always "once bit, twice shy;" but, "one sip, a hundred try." Yea, still more, for I do but state the truth, for many find it true that for them there is no relying on wine, women, or fortune; for these are, indeed, but three fair dames that flit and glow in passion's flames. To the fool, they turn to sin; to the wise, to diadem. Truly, drink breeds sin, and sin steals the soul; but honestly leaves the body to its mother-earth. It is a rough guess; and yet, withal, I do marvel, that a saint should have said that "drunkenness is a bewitching devil, a pleasant poison, and a sweet sin"—for saint though he was, the use of such loving words indicates that he has been at some time an ardent lover of a "bewitching devil!" a joyous taker of "pleasant poison," a delighted reveler in "sweet sin." Sinner, though I am, I would never have given it sweeter praise. While 'tis said, that a drunkard continually assaults his own life, yet there are more old drunkards than old saints; for it is truly easier to be a drunkard than to be a saint. But, forsooth, "sweet sin" nourishes better than dry virtue. As the soul so acts, so acts drink; 'twill not make a devil a saint; nor a true saint, a devil. 'Twill not make the truly wise, a fool; nor a fool, a Solomon; nor will it make a true man, a beast. But it will make a devil more than a fiend; and a saint less a saint. A beast is a beast, with, or

without, drink. A fool is eternally a fool, whether drunk, or sober. *Ergo*, drink makes not brain.

VEGGE GO.—Thy talk seems but praise; for a drunkard is known by his praise of wine.

THEO CELSUS.—Perchance you are right. But the Dane has said: "He is worthy of sweet, who has tasted bitter;" and my mouth has oft been twisted bitter. But sometimes it is as hard to change a drunkard as it is to shave a beard off an egg; for memory is not only the feeder of reason, but of appetite as well. Nay, is not a drunkard first caught by taste, and then ended by appetite? Drunkards are sorry reasoners; for they fail to find any difference between "good," "better," and "best." Now, "best" is always first. Now, the drunkard knows not, when he drinks o'er much, what is "best" for him, or he would not repeat his offense; but, forsooth, because "good" wine is "good," he would take more, to make it "better;" this his "better" turns to bad. True, strongly true, is not "better" an enemy to "good," and "better," as it were, an underling to "best"? Then, "better," "bests" "good;" and "best," "bests" "better." This is a crooked argument; but, then, the drunkard is crooked by habit, and never becomes straight by drinking.

THEODORUS.—There can be naught but pity for many drunkards; for what we call habit, peradventure, is, after all, bitterly, an heritage from vice and frailty, whilom in dear, beloved ancestors. Such drunkards are no more beholden for their vice than for their birth. For God alone can answer, why any man was born. Life is more than mere living; yea, to live right, and well, is a rare difficult query, even to sturdy and most worthy minds; for circumstance is might, if not right, and bends reason and action to its sway. Thus, our lives are not infrequently made but sport and jest of cirumstance. Life, test, trial, and punishment begin with birth; and in birth we have nor will, nor choice. As 'tis with birth, so 'tis with heredity: it is part of birth—hence, comes with birth. It is the same as birth. 'Tis the fiat of our Maker. There is no beseech, entreat, nor plead from the stamp and seal of the creation and work of inheritance; for inheritance is but a part in the impulse and motive force of action, e'en as much as breathing; for it is part of life, and, hence, knows no separation. We are born; we live; we die. This is God's dictum. 'Tis oft said: " 'Twas sad that he lived not better;" but that is man's opinion. But, after all, what is done is God's; and man's opinion is all too weak and earthy to touch beyond the confines of this world. God is *fiat*, and with God is no opinion. Man thinks; God wills.

A vice acquired is often more than murderer—'tis doom. While it slays its first victim, it but plots, and slays his progeny for generations to come. Aye, one should, indeed, be grandly good and pure, to damn such drunkards. 'Tis said, that drink and crime are twins; but sucn they are not, though they are oft revelers together. Every cause has its fruit; but the virtue of the fruit depends upon the richness of the cause. Which in this cause is the richer—man's self or man's drink? Now, the brain is an inborn thing, and creates action, and if there be no cause for action, true it is, action cannot be made. Many crimes, put to the blame of drink, do but spring from other causes. Blame is ease's way of settling a thing; for not a thousand coincidences will make one

truth. Is it not true, that he who drinks is always a drunkard, though many drink who never get drunk? 'Tis the brain of the man, as 'tis made, which commits crime more oft than drink. For drink, has oft been said, uncovers the brute, villain, and murderer, which time would surely do, e'en though this brute, villain, and murderer had ne'er taken a drop of wine; for, after all, the force of inheritance, occasion, and circumstance is stronger far than drink.

PARA BLAR.—Aye, true, as 'tis said, "circumstance moulds fate." Surely, circumstance is a giant which gives birth to conduct, makes law to its will, alters cases and causes, is beyond the control of man, and, like power, hath no respect for aught but itself.

THEO CELSUS.—Yea, a fool may make circumstance, e'en as well as the wise and great. But circumstance is like life; bides and controls; yea, still more is it like death; for, in the end, it sums the result.

Mind—the thinking power of man, the understanding—which conceives, judges or reasons, remembers, and wills—in short, the soul, the living soul, has but added the power of moral judgment and action. Yea, but I do marvel at the will. For the will is but a creature of the soul, yet at times its ruler. Mind, soul, and life, do but live in the brain. Will, this wonder—this trickster, is but the soul's slave, and obeys its mandate for weal or woe; yea, 'tis true at times the mind's tyrant, the soul's wielder. 'Tis common assert, that he is most powerful who governs himself; but he who hath not inherited the right and proper will, must have poor self-government. For our will compels our actions; and an inherited will, vicefully inclined, is but the motive and the power, as it were, springing from the past and dead. Yea, after all, it is the power still of that now non-existent. Nay, let me prate as I would, and ponder as I may; for this but leads me to the truthful tale of my former, but strangely fated master, whose mind, or soul, if you wish, has a power, but whose will was vexed and weak.

As thou know'st well, Theodorus, I did but serve lawyer L—— for some years; and, aye, he was, indeed, a creature of profundity, vagary; and impulse. He was, forsooth, a good lawyer; and, like logic, he knew, he proved. He was ever his own assertion's proof; and yet, withal, was not unlike reason; for he could "govern the wise, and cudgel the fool." He was the paragon of eloquence; for "all he said was well said, and just enough;" hence, there was no need of saying more. Yea, at times, he was as good as wisdom; for he was a perfect judge of folly. Gods! Then, again, he was just like passion: he was blind to everything but his appetite. For months, no thought of drink seemed to move him; he would be industry's own, and tireless attend to every detail of his duty. In such times, neglect never bred either work or mischief, until thirst, in tireless crave, did all but consume him. Aye, right well, I knew, when his crave did assail; for thus he would gag and then gag again, as if nauseated; and then, ruefully and woefully complain of pain. Then he would raise his shoulders many times in sucession, and finally draw his arms up in quick haste, and then propel them out again as quickly. Click and snap went his thumbs and fingers, in nervous haste! Here, then, was the start, the plain and strong start, of stressed and intemperate trouble; and orgies, red-hued and rife, were only too soon to be his. His eyes, seemed to be

dull and troubled. Soon would he call for a vessel of water and a bowl, and gulp down bowlful after bowlful of water; in frenzied haste. Then, he would start and walk with quickness and haste, across his chamber, time and time again; and then, with bowed head, quickly stand still, stiff, and muttering—stand almost as a statue. Then, he would begin to argue, aloud, to himself, about the hateful quality of wine; with solemn face and impressive mien, detail the powerful, hideous, and miserable woes gleaned from drink. Nay, more than once, have I seen him stand, as if in pain and anguish, repeating this verse:

Wine! thou art mind's charm, mind's shame;
Wine! thou art soul's allure, soul's blame;
Wine! thou art devil's goad, devil's bate.
Wine! thou art hell's fruit, yea, fool's fate.

Thus, would he argue, stress, and crave; and blind impulse became his master. Then did questions torment, rack his brain: "To drink or not to drink?" would he murmur; and then, in strong accent, came, "Drink! yea, drink!"

Then, as a changed man, he would suddenly, as if dazed, start; in slow orderly manner, get hat, coat, and cane; and then sedately depart, only to plunge into the direst excess and debauch. Drink, drink, drink he must; until no more could follow. All drinks were but the same, so they were strong; yea, in frenzied strain would he say: "Hark ye, mark ye, Sirrah! make it strong; for strong is but another name for right; yea, it is God's truth; weakness is naught but might and right, filled with rot." Again, he would murmur: "More! more! my more ne'er ends want; for nothing makes man drunker than bumpered "more." Gods! but I'm like avarice: I know not enough; and like fate, I control, but am not controlled."

I do marvel how Master L—— differed: L—— sober, from L—— drunk, as night from day. L—— sober, was a wisdomed, honored, and powered man; L—— drunk, a somber soul, silent and suggestive as a ghost. Not a smile ever shone on his face. His actions were all the most earnest and solemn. Like a sleep-walker, he would move with fixed gaze, or stand still as a post, for an hour at a time, quiet, as if lost to the outer world; until the impulse and thirst assailed him; when purpose made activity her slave, to obtain more drink. His voice changed from the quickness and alertness which marked it during soberness, to the measured tone of a dead march, when he was drunk. Thus did I hear him argue in pained extenuation: "Nay, what is will with me? 'Tis a crazed caprice; a wanton, willful villain. Aye, are we not told that will is but the power of choosing; yea, that faculty of the soul, which makes me capable to choose—the power to prefer or to select. I will; my volition acts. Nay, does not my will and volition keep me free from all drink, for a half year at a time? This part of my life doth seem like unto other men. Then, the sober will is restrained and arrested; and time seems to mould and make another will; which new will mould, and must have drink. Time alone seems to beget it. My soul sees, knows, and rebels; yet, while will is but a function of the brain, still does it not, indeed,

rule brain, body, and all? Nay, has not my very soul thought of its degradation, e'en when I was in my wildest cups? Yet, my will seemed but a blind, determined, irresistible force. My love of drink is honest got, for it is but the heritage from drunken sprees of many of my old ancestors. My sober will is God's dear boon; but my drunken will is hell's inheritance—vice's wild, sad echo from the dead; for drunk or sober, I but live the counterpart of a famed grandfather. Yea, I know that I have but one soul yet from that soul spring two wills: one the will of weal; the other, will of woe."

Thus did he speak. And I could but believe the truth of his assert, when o'er his spell, sadness, remorse, and shame, did but tell their terrible force, on features, in words, and in motion. Sad-eyed grief seemed mildness compared to his down-beaten and dazed appearance. He looked, rather, the appalled and frightened madman. I do but believe that this man's blind and crazy impulse surely portend an evil fate. Impulse yoked with inherited vicious will is but madness; and their combined wild violence will surely slay their owner. Aye, in Lawyer L—— thou wilst find thy true dipsomaniac.

TES AURE.—Aye, this were, indeed, pitiful; so, pray give thy charity to the burdened man, but scourge his vice. Yea, for such a fate as this, good nature surely weeps. Gods! it were sinful to relent towards vice; for its very frenzy doth cry for righteous, yet strong aid. Aye, surely there must bide, in some good Christian's brain, a will strong enough to chasten and correct this one.

VEGGE GO.—Yet, have I heard that the unseen cannot be cured; for the unseen is but the unknown; and if thou cannot know, how canst thou cure?

THEODORUS.—Yea, "cannot" is oft but a fool's opinion; activity's throttler; a lazy dog, that tucks its tail in lieu of bark; and they all mean but lack of effort. Nay, strive! for, when thou dost strive, it means hope; and true it is, that he who will not strive in this world, should not have come into it. For we oft have heard, and surely know, that "there is a remedy for everything, if we had but sense to find it."

PARA BLAR.—'Tis plain and true, that drink is but a vice, which brings, in its long, sad train, a world of sin, misery, crime, disease, and madness. All things are done without drink better than with it. Why seek harm from a doubtful pleasure? Why weaken the will, when the will, untouched by drink, governs best? Nay, by my troth, I do, indeed, but wonder why men seek for better than health and content; for these are, after all, the best of happiness, and more than wealth. Yea, when thou hast health, seek for nothing better; for God ne'er created better. Health is oft our unheeded bliss—vitality's triumph—yea, life's crown-browed acme! Health, the sturdy parent of zest! And zest is but the joy of being, which continues when health is unabused—health unabused being another name for temperance.

Why needst thou drink and thus have pain, when pleasure
is just as readily got?
Why needst thou drink and thus have torture, when ease is
just as well thy lot?

Why needst thou drink and thus have torment, when comfort
can just as well thy soul entwine?
Why needst thou drink and thus have agony, when joy can
just as well be thine?
Nay, if thou hast health, thou art blessed, and thou hast
more than man can give.
Nay, keep thy health and hurt it not; for without health
thou must in misery live.

THEO CELSUS.—"*Why*," didst thou say, Para Blar? "Why" is a prodigy, a marvel—"why" is cause, reason, and purpose. Yea, by the gods! "why" governs the world; and, like man, carries its superiority upon its unknown side. Man, Life, and "Why," form a trinity whose mystery none can solve. Nay, the world wags but upon these three: "If," "Wherefore," and "Why." "IF" this world was not, it would not exist. "WHEREFORE" does it exist? "WHY" is like eternity—it hath neither beginning nor end. Yea, there is an infinity between "Why" and "Wherefore." True, one tongue is even enough for a woman; but a thousand would not do for "Why." "Why" comes with birth, goes with life, and, like death, ends all things. "WHY" was he born? "WHY" does he live? "WHY" did he die? "WHY" is a power on earth; perchance, 'tis so in hell; but, unlike an angel, it bides not in heaven.

THEODORUS.—True, true, indeed—"Why," most oft, is a soul's query of its errant will. "Why," it would surely seem, wells in a drunkard's brain, when in sobered sense. Nay, in such men as lawyer L——, there lives a diseased will. Aye, was he not sober for months; and then, did not time bring a helpless and enfeebled brain? For, thus was it shown in Lawyer L——, that but one single, inherited, tyrant idea did well up in his punished soul—that idea was but to drink. Nay, did he not strive to drive it from him? Then came his mind's battle, between his self-controlled will-power and his dire impulse. Now, in agony of his mental strife, did his torment and his fear reach their turning-point. Yea, but 'twas fated; for his enfeebled and weakened mind did kill healthy resolution; and his will, through strongful impulse, acted by instinct, as in utter helplessness. Thus may instinct control, and e'en a great, but weakened mind, become a blind, vagaried thing. Now, sirs, we have another phase of the actioned part of the soul; and that is stressful inherited will.

PARA BLAR.—So, then, this mind's inheritance is but its present power of harm. Now, then, thus do I say:

If thy will from ancestor came,
  Thy future course is its behest;
For ancient vice is present pain,
  In this life is ever manifest.

Thus said, will or will not,
  As thy soul doth truly see:
If willed right, 'tis fortune's lot;
  If willed wrong, 'tis heredity.

THEO CELSUS.—Aye, speculation is much like a dog. It bays at the moon and barks at the stars, because it is its nature too. Forsooth, in this point of our discussion, we trip it lightly over a very thin ice of speculation. Nay, do we not skim our milk from the bottom, while sense begins atop. Nay, do we not blame our ancient dads overpertinently; for surely it is an awful distance to get instruction from the dead, when a living world around wields us.

If willed right, 'tis fortune's lot;
If willed wrong, 'tis heredity.

These lines are but another name for chance.

True, then, 'tis reason; if this be truly so,
Chance must mould our lot for weal or woe.
Ours is useless strife, as ancestry decides the drop;
For Ancestry long ago hath foretold our lot.

Aye, all footsteps lead to the grave, and there is no mark of any returning. Truly, then, we know but little of the dead. But still, blame, at times, is a wise coward; as it more oft assails the dead than it does the living. True, aye doubly true, 'tis more than heredity which makes drunkards.

HEINE LANIUS.—As man trieth drink, so drink trieth man. Verily, untold millions have assailed drink, only to become fluttering angels; still drink yet remains earth's most ardent spirit. Yea, 'tis truth, man hath no new passions—they are as old as man, born of emotion and feeling; appetite is but a creature of instinct, and it oft doth become as harsh as its master. Aye, in very honesty, must I believe that the appetite for drink is very much a matter of ancestral health. I pray thee, patience, but, forsooth, when this theme first came from thy suggest, Theodorus, it brought to my mind many thoughts; but none so vivid as my remembrance of Sir Kay. He, Sir Kay, was a bachelor, and did bide with an elder brother. These brothers had large estates and bountiful means, and my employ with them was as their scribe. By my troth, 'twould be hard to reckon how much they did differ. Sir Kay was a tall, powerful, dignified-looking man, with light hair, blue eyes, a clean-shaven, mobile face. Aye, indeed, he was a winsome soul, never petty or mean, ever humane, charitable, and kind, with beaming humor, which entranced and soothed. In faith, his brother was another kind: a small dark-haired and bristly-bearded man; yea, a wiry little man, all activity and business, with a miser's nature, wherein he made all the world for himself. This good soul, Sir Kay, was ever a student, whether in the walled space of study, or under the sphere-lit dome of heaven. Aye, in verity, he was an eager, industrious reader; his mind was rich in stores, which did but wield comforting and delicious tributes to those fortunate enough to know him well. Forsooth, then, to me, he was ever a most welcome and a delightfully entertaining good genius, who did but bend my thoughts to realms new, stoundful, and rich.

But then, alack, God bless me! here doth trouble come; for the one

single thing which beclouded the character of this beaming, brilliant man, Sir Kay, was the fact that he was, what he called himself, "a boutish drunkard," who fought not with mortal enemies, but with bacchic spirits. Thus have I, indeed, heard him saying: "Yea, Gods, 'tis truth, the sun times my sprees: when he enters the first point of libra and the first point of aries, then my libations start. Zounds! what then time moulds my bouts with drink. Aye, call me an equinoctial, periodical, and rhythmical drunkard, and thou namest the medley."

Aye, by my troth, wonder e'en doth seize me now, when I do but think of Sir Kay's mad humorsome course when in his drunken bouts. True, indeed, it was, that Sir Kay was ne'er at any time morose or sullen, seemingly always beaming and cheerful; but heavens! when once truly started in his cupful course, he did but become a booming bombilated Nabob. Yea, strangely erratic, quaint, and comical. 'Twas one thing this time, 'twas another at some other time. Perchance, some trivial thing to his notice came, only to bring forth outlandish and freakish actions, which he carried out with unflagging intensity. Time and time again, I have seen him array himself in some odd and droll attire, and play the part in a drunken vigor. Momus was his deity when in spreeful bent; all things were turned to laughter. Aye, in very truth, 'twas very hard to tell the depth of his freakish fantasy. Thus far 'tis good; but anon 'tis not my intent to tell of his whims and tipsy follies, but to tell of his thoughts and reasons as to the cause of his forceful and strangely vagaried habit. Forsooth, it was but natural thus Sir Kay's brother would at times upbraid Sir Kay for some strangely outlandish action. Thus, upon one juncture, in my presence, he did assail Sir Kay, who was then zestfully filled. "Gods," said Sir Kay, "art thou virtue's nurse? Bah! drink tickles thy palate day by day; thou circlest the year, and I but semicircle it. Yea, 'tis an ancient monostich, a limp tale; drink in me is another thing than drink in you. Thy goggles give thee thy view. Thus, sober, when I see thee drink, then indeed it looks bad:

Too much drink in you
Brings the fool in view.
Too much drink in me
Lets you see another idiocy.

"Nay, nay, my brother, tell me not thy thoughts, for I swear to thee that old Adam's were fresher. Aye, full well I know that drink is a brain-sickening tyrant, and in some men beams in vice, hides virtue. Aye, I'll agree to thee and others that the drunkards are never virtuous.

"Yea strange, doubly strange, my better nature only larger grows when in vinous sap. Come man, come, thou givest miserly; 'tis only words that thou spend so freely. Zounds! 'tis ever thus words and words are showered upon the drunkard, their virtue is dead, too common to do good. Words may be the slaves of dolts and jabbering idiots; a word is a mental flash, backed by a puff of wind. Verily, I say, words won't feed cats, nor redeem drunkards." "Gracious, goodness, Sir Kay," said the brother, "what more can I give thee than words; naught seems of any avail. Thy teeming good sense surely were enough to help thee to better ways. Nay,

then, copy the Turk and Hindoo; these motley heathens ne'er partake of strong drink; their restraint makes them better than thou art." "Tut, tut, tut; fie upon it sir" said Sir Kay, "thou weariest me, how, now, dost thy Turk become morality's nousel, because, forsooth, he touches not strong drink. Aye, believe it, a lack of this habit in thy Turk still leaves him loaded with vice, and ne'er maketh him a soft-winged angel. Well, alack 'tis nonsense; nay, then, I tell thee, search thy turbaned paragon, the Turk. I'll grant thee that thou mayest not find him with a brimming flask; but in, about or near him, thou wilst find nerve-numbing opium. Gods! 'tis verity, that opium-guttlers have as many, if not more, devious ways in sin than ardent sappers. Yea, 'tis truth, anciently proven, that habit is wide-worldly phaseful and ever hurtful. Lo, and behold! nature begirds man; locality begirds man's habits. Aye, doubt it not, fair brother, that neither grapes nor poppies grow on polar ice. Thy squat-legged Esquimaux, according to thee, must be the most virtuous of men, as neither wine nor opium claims him as their devotee. A squalid opportunity here makes a squalid race. Bah! away with it; man's viceful habits are as the owl sings: on my side 'tis 'Too whit, Too whit;' on thy Turk's side 'tis 'Too whoo, Too whoo;' parts of the same old song. 'Tis drug or drink, and habit but wills their character, for they yet remain the screech of vice. Thy loose-clothed Turk tickles the wattled tracery of his stomach's nerves with sunburnt poppy juice, whilst I tickle mine with iridescent hued liquors. Yea, heavens, thou canst find dark-hued vice biding in black opium, aye, as true it beams in burning sun-touched liquors Nay, then, I pray Turk me not; for the hoary face of time but shows thy paragoned Turk to be more of a sinning Tartar than a mild-eyed houris."

Aye, upon my soul, in restive powder, yea, in badgered wonder, Sir Kay in verity did upset my every consider. Truly, he was a kindly, prankish freak when in his cups; for thus, I say, harm e'en then was not in him. Anon, when o'er his wayward spells, grief seemed not to rack him; regret, perchance, there was, but of this I know not. Maybe that grief came not, for the fact that harm he had not done to any one except himself. 'Twas strange Sir Kay might be to-day a mad freak, but on the morrow he was the same placid, elegant creature of strength and dignity.

Excuse is mine, sirs; I beg your patience, perchance I do but lag. But I say excuse is mine in the virtue of the subject; yet, I will court haste. Nay, then, thou canst readily imagine that this kindly being, Sir Kay, had so aroused my soulful interest, that I, forsooth, would strive to learn the motive of his habit. Fortune favored me, thus, once I did pertly put this question: Could he not rule his habit; still more, what was its causes.

"Sir," said Sir Kay, "in deepest truth, thou asketh me my soul's enigma, which perchance I can but poorly answer. Gracious, goodness! this my intemperate habit hath been my ponder for many fitful hours. Life is the awful unapproachable mystery of our Creator, whilst mine own life to me is a forceful, rueful, medlied problem. To solve, to rightly solve, my strange mindful phases, is beyond my ken. Thus, if then one single ruling element which impels me to drink and thrust aside my strongest resolution, that one thing is pain. Aye, here, indeed, doth gnawing ponder come; along with this pain comes a state passing strange: my mind is active to all things around, but unconscious will doth rule my yet active mind.

Nay, my mind is undazed, I am in possession of every reasoning faculty, all senses keen and acute. Here surely seems stultiloquence; yet when, when how, with whom, or other circumstances, when I take my first drink I know not. God's intensity may fill my soul. I swear by the gods that drink I will not touch. My every thought, yea, the soulful, forceful blaze of my mind's intensity fills my inner being; my muscles are set, and will seems to hold my being in bands of brass. The sheer intensity of my determination doth seem to be unnaturally strong until I wake from my self-made hypnotic state to find that while unsconscious in this very state, I have partaken once. 'Tis then fervor glows and determination takes its drunken course and delusive mental throes leave my brain. Now, I pray thee, listen: pain is mind's suggest; vague pains fill me around and in abdomen, and along with this comes my strange mental state.

"Nay, then, must I tell thee that I have striven to end my time-grown habit, but to no avail. Have I not gone to more than one medicus, and in frankest strain told my woes to these agents of ease-pain interpreters, functionaries of the greatest of the great of all unknown qualities? Well, alack! this I say to these reputed body-menders, that I have pain; then, in fulsome terms, detail my hopes of cure, my longings for relief, rehash platitudes. What cometh then? By the gods! 'tis true, that these twaddlers in disease question and rack-question me.

"They then turn their eyes heavenward to suck in wisdom, but the eye sucketh not; they peer into mysterious distance, which more mysterious becomes; ruffle their brows into sculptured furrows, hump their shoulders, make deepening gravity besiege their face, and ponder manifest in their rigid posture; then with awesome solemnity gaze at me, and with a blank-lit face tell me that I have pain without pain—a hypochondriac! Pshaw! 'tis nonsense. Aye, in very truth, must I believe that the true interpretation of a drunkard's pains will cure many a drunkard. Gods! 'tis natural thought: thy doctor who ignores pain, is a functionary abortion!

"Gracious heavens! it doth seem that at times my mind is an elastic thing—it doth stretch till extremes do meet, and thus end in weakened confusion. This think I: 'tis pain; then with it mental intensity. This intensity doth numb my mental strength; my subconscious self doth become the acting power; my pain doth lead with me. 'Tis said:

"'Nothing begins and nothing ends
That is not paid in moan;
For we are born in others' pain,
And perish in our own.'

"Verily, full well I know that pain is life's penalty. With me 'tis an omen of disease—aye, a token of inherited distress. Gods! perchance 'tis a strange thought, but in honesty must I believe that pain and will are close akin, and are the most earth-earthy functions. They can have no place in heaven or hell, but must bide on this lifeful sphere. Aye, pain is life's greatest blessing and its direst curse, and our ignorance doth keep it so. Sir, here must I end; more I need not tell thee." Now, worthy sirs, this is Sir Kay's story; and to me it doth truly seem that true headway in treating the drunkard must ever lie in true mental interpretation.

To the world, perchance, all drunkards look alike. Nay, doubt it not, the interpretation of a drunkard's sensations and pains may lessen this long-continued curseful vice."

THEODORUS.—True, entirely true, and marvelously strange—frenzied intensity is close akin to lax uncertainty. Yea, when in this strained state, the most trivial impulse may direct the mind to either side. Will's rigid embrace but ope's the way to impulsive instinct. Will, the ruler, becomes frigid, and thus is a prey to man's erratic nature. Aye, indeed, 'tis ever-acting fact that unconsciousness hath given birth to wayward, senseless action and vilest crimes.

PARA BLAR.—Verily, it is true that surroundings and heredity are inverate questions, wherein man throweth off a stream of verbosity, unmindful of the purity of the flow of his argument. Partisanship in either, resembles the labors of a puppy pursuing his tail. 'Tis self-made vexation. Anon, frenzied argument is very far from being consummate wisdom. To me it doth truly seem that the so-called sequences of drunkenness are amongst the saddest pictures in man's varied flow of life. Drink becomes a welling coagulant of all normal activities, a shriveler of function, a corroding solvent of use, the fusil of disease, the propagator of horror. Yea, thus think I: the world can spare its drunkards and thereby be rendered infinitely better. But, then, if only the drunkard hurt himself, then it would be a simple relieving and just retribution; but when his drink inflicts upon the world his diseased progeny from generation to generation, then, indeed, doth it become a potent power for past, present, and future evil. Thus do I read from Hirsch: "The disease of germinal substance is in many cases due to actual poisoning, more especially, by alcohol. Many authors insist that chronic intoxication is not prerequisite, but that, if a mere condition of first drunkenness supervene upon the act of copulation, it alone sufficeth to transmit a degenerate element to the offspring." Continuing, in a foot note he says: "Compare Von Krafft-Ebing, page 179. Wonderful as it is, cases adduced by Von Flemming, Ruer and Demaux prove the fact that even children of otherwise temperate parents, whose copulation took place in a fateful hour of drunkenness, are extremely disposed to mental derangement, especially to itself from birth, as inborn imbecility."

Aye, here doth the menace of cause spring from our living action; yea, yawns open-mouthed from the jaws of death.

THEO CELSUS.—Alas' tis sad that 'tis so; but that 'tis so is ever manifest; sensible men still have much of the fool within them; and thou, Para Blar, seem to be one in whom suggestion and credulity find meat. Well, alack! what then; why 'tis this much: earth's greatest martyrs are men who are the eternal slaves of suggestion. Nay, it can be proven, doubt it not, that suggestion is oft the most dangerous, the wiliest and deepest thing in life; it, suggestion, cometh indirectly like force, it moves. Gods! its extent is great: it proposes, it informs, it intimates secretly, it tempts, it seduces, it hints, insinuates. 'Tis oft information untrammeled, with the sacredness of oath; thus becomes a scheming, wily villain's most puissant weapon. Aye, thus I think: that suggestion is far more oft an unscrupulous hypocrite, than it is an honest agent.' Tis ever deeper dyed in delusion and lie than it is touched by honesty and truth; truth lives best with itself, it needeth not suggestions. Credulity is a time-server and a slave of suggestion.

Yea, marvel doth seize me but thou shouldst know, Para Blar, that when credulity pets a man, she always makes a fool of him. Gods! is she not a short-sighted, babbling dame, with more ears than brain? Anon, in very honesty must I say, that I can believe many things, but not all things, which are said about drunkenness. Aye, upon my soul, I cannot be led to believe, as has been said, "if a mere condition of first drunkenness supervene when in bond of union, it alone sufficeth to transmit a degenerate element to the offspring. This bad interferential effect may show itself from birth, as an inborn imbecility."

Nay, then, I'm not much of a fool nor a crank, still less a genius or philosopher; but if this assertion about first drunkenness be true, then, by the gods, is man born for the mere purpose of being a degenerate! Nay, if one act makes a degenerate, then, indeed, is he easier made than a sausage. In verity, to me, this argument is a degenerate colossal of assertion on legs of wind.

Aye, by my faith, if this be true, any respectable, silent, brine-sucking oyster might justly resent this idea of first drunkenness creating degenerates as a threat to the happiness of his future genesis to man's estate. Yea, 'tis sad that this poor dumb oyster is fated to pass through a condition worse than his oysterhood. Gods! here doth an errant science levy a tax even on credulity; but, then, other things than soap are made of very vigorous lye. Pish, bah, for one! 'Tis not in one to imagine, let alone believe, that a weakened one can nullify millions; nay, 'tis nonsense. I can ne'er be brought to believe that one drunk can either make a drunkard, still less a degenerate. True, where like unite the result must end in like. Aye, 'tis but natural thought: that where the degenerate unite any form of degenerate is possible. Nay, then, I do not mince, the bond of union of degenerates must ever beget a progeny worse than themselves; 'tis against nature's laws to beget better. Aye, in the drear realm of degeneracy, the normal ever dies. It can ne'er be proven that buzzards beget birds of Paradise. Truly, to me, this seemeth scant in sense; any one act, if carried out in sufficient intensity, when in bond of union, would create the effect of this act. Aye, the limit cometh not, yea, make the then wise thinking fool, when in bond of union, beget a Solomon; yea Solomons move all nature, whilst thy fool sits lightly in her lap. Nay, upon my soul, here surely is an instance where observation becometh a thing of wild assertion. Aye, 'tis true, the realm of degeneracy hath its limits, and nature stays the degenerate's course.

Great cities which are annuated by time and civilization into
a worn-out state,
Doth create and develop in viceful force earth's erratic, waning
man, the degenerate.
Omnipotent law doth life's fruitful germ guard and nurture; yea,
sternly and unceasing protect:
'Tis God-ordained fate that all wayward life, all wayward vice,
must their end elect.
Aye, amidst the all-powered, unending, yea, everlasting, evolution of man,
There, in grimest grandeur, ever towers stern browed Justice to
fix on vice her deathful ban.

Thus, then, was the theme discussed, flowing with the verjuice of assertion. To me, it day by day doth seem that thought makes a teeming world of things. Aye, the drunkard hath overmuch in him besides drink. Nay, then, I do but think that life plays with the drunkard in a varied manner. For life with the drunkard is very much like what a tornado does with substance. Here a flake of quivering eider-down is hurled at the merest breath of this tornado; still in the end doth it find a protecting saviour amidst its intense furor. Here a seeming irresistible ponderous thing, unmindful of this tornado's strongest force, is, yet in the end, hurled to destruction. Aye, fate guides the drunkard for good or bad, as chance makes it. Nay, to the ignorant, and such a one am I, wonder doth come as natural as sleep. Aye, drink has made more men giddy than I. As it reeketh in human nature and perchance is most oft neck-deep in transaction of a viceful and scandalous character. Verily, in gleesome wonder did I oft notice Vegge Go when this theme was but discussed: keenness and intensity seemed but to seize him, his face played tuneful to the changing thought, and he but mimicked in unconscious way his mind's intent by muscular action. Aye, indeed, he did labor hard. It chanced that as I was about entering the waiting room there stood Vegge Go in its very center, a picture of deepest thought and concern. "I beg thy pardon," said I, "I trust not to intrude." "Nay, Mens," said he, "thou hast saved me from myself, as thought did not root me here; for this theme doth intoxicate me. Odzokens end the drunkard, 'tis nonsense; Gods, do they not unite the vanity of the peacock with the obstinacy of the mule; their conceit doth make them believe that their cunning is unfathomed, whilst 'tis like the ostrich: he hides his own eyes, whilst the world sees toes, legs, rump, and all.

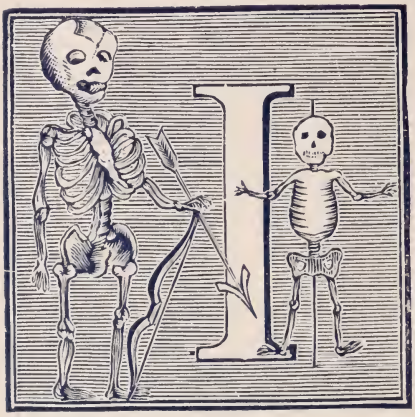
The drunkard's sagacity unto himself is as the fox's, whilst to others 'tis more blundering than a goose, who cackles and hisses to show the fox his locality. Nay, then, Mens, thus think I: there is only one cure in the wide, wide world for drunkenness. Yea, thus I say, and say it again, don't make man; then drunkenness doth end. For as sure as thou makest man, man maketh drink, and drink maketh drunkenness." "Verily," said I to Vegge Go, "thy say is deadly true; and, like all life, it tends to death. Nay, by my faith, the incarnate truthfulness of a thing may make it lie, and truth may be so true as to make it useless and senseless. But, I beg thy pardon, this theme is very like unto a wheel, which hath neither beginning nor end, but whose spokes tend to tire."

[TO BE CONTINUED.]

Dr. Webb J. Kelly Honored.—At a recent meeting of the faculty of the Ohio Medical University at Columbus, Dr. Webb J. Kelly, of Galion, was elected Professor of Principles and Practice of Surgery in that institution. This is one of the highest honors that it is in the power of the college to confer, and the honor thus conferred upon Dr. Kelly speaks volumes for his reputation as a surgeon. At the same time, the doctor was elected as one of the surgeons to the new Protestant Hospital, now nearly ready for occupancy, in the same city. This appointment is considered far out of the usual line of promotions, as it is seldom that a surgeon from out of the city of Columbus is given a seat on the board of urgeons of the institution named.

THE COUNTRY PRACTITIONER.[1]

By G. R. HIGHSMITH, M. D., Carrollton, Mo.,
President of the Missouri State Medical Association.



IMAGINE that the city physician thinks of the country practitioner only as the hard worker exposed to all the vicissitudes and inclemency of the various seasons, pursuing his humdrum way over muddy roads, in night and storm and darkness and discomfort, receiving but meager compensation in the way of fees and less in the way of gratitude from his well-served patrons. I want to disabuse your minds of such ideas. The country doctor who is in love with his profession and has his eyes and ears and heart open is not without the highest enjoyment, to say nothing of a good fee oftener than you suppose. Nature opens her heart and unveils her face for his special delight. He sees gorgeous sunsets, mellow twilights, shooting stars, brilliant meteors, fair dawns and "rosy fingered aurora a tiptoe gilding the misty mountain tops," and landscape through the haze of the early autumn days is a picture that no painter has a coloring to mock.

"The robin pipes when the sun is here
And the cricket chirups the whole night through,
The buds may blow and the fruit may grow,
And the autumn leaves drop crisp and sere,
But whether the sun or the rain or the snow
There is ever a song some where."

Imagine, if you please, the country practitioner behind a pair of well fed and well groomed standard bays—his own—speeding across the country through level prairies and long lanes, over bridges "where goodly rivers roll between their leaning willow walls of green," past villages, churches, district school houses and "over the hills and far away." Every sight and every sound suggest some picture he has seen, some poem he has read or some music he has heard. He does not note the road or the team; he takes no cognizance of the village, field or wood; he does not take an inventory of the beauties of the landscape; he does not heed the greeting of his dearest friend. He observes and drinks it all in, but sees nothing. A sort of unconcious cerebration. He speeds on, he has visions, he builds castles and dreams dreams. Perhaps to-morrow he is to read a paper before the Women's Wednesday Club on Joaquin Miller or James Whitcomb Riley as a poet, or on Thursday evening address a meeting of school teachers on the hereditary transmission of genius, or discuss a medico-legal society on "Was Edgar A. Poe a paranoic," or next week

[1] Read at a meeting of the Wabash Railway Surgical Association, St. Louis, November 11, 1897.

read a paper before the Wabash Surgical Association on the country practitioner. Whatever it is he has weighed, gauged, dissected and analyzed the subject and fixed the scope and outline in his mind so he has nothing to do when he gets home but look up and verify his poetical quotations, jot down his thoughts, fix his capitals and punctuation and send it to the typewriter.

His team turns out of the road and stops. It may be before a palatial country seat whose proprietor is rich in flocks and herds and broad acres, and it may be before the squalid abode of poverty. He is twenty miles from home. He looks at his watch and finds that he has been two hours on the road. He observes that the sun is shining or that it rains, or it may be that it is snowing, with a stiff breeze from the northwest. It seems but a moment since he left his office. His mind has been employed and he has been oblivious to time, circumstance and environment. He enters the habitation. It may be a case of appendicitis, empyema, mastoid abscess,

osteomyetitis, a foreign body in the trachea, or a crushed and mangled limb. It may be that the physician has prepared everything, scrubbed and cleansed the field of operation and applied bichloride gauze under a neat roller bandage and has a row of white pitchers, some containing hot and some cold sterilized water, over the tops of which has been neately tied several thicknesses of bichloride gauze, and it may be that he finds nothing done and the doctor in the kitchen or at the barn, smoking homespun tobacco in a corncob pipe and regaling the bystanders, who gaze in open mouthed wonder, with stories of his college days. What old Dr. Chapman, of Philadelphia, or old Dr. McDowell, of St. Louis, said to him, in the green room at his final examination, although he never saw Dr. Chapman or Dr. McDowell, and never was in Philadelphia or St. Louis, and perhaps never saw a medical college. But all things have an end, and the work, whatever it is, is done. It may have been a case of forceps delivery or puerperal fever, or it may have been a case of pure unadul-

terated hysteria. There may be a good fee at the end of it, or there may be nothing. Whatever the result, the doctor is soon on his way home or somewhere else. If he gets a good fee he starts humming something like this: "The doctor came with a free good will and gave her a dose of calomel," or "Blessed is the doctor, he rides in the rain," etc. If there is no prospect for pecuniary compensation, something like this comes to his mind. "Man that is born of woman is of few days and full of trouble." If the patient has been an interesting young lady in the throes of hysteria, flatulent colic or dysmenasshoea something like this would take possession of his mind:

What time the poet hath hymned
The writhing maid, lithe-limed,
Quivering on amaranthine asphodel,
How can he paint her woes,
Knowing as well as he knows,
That all can be set right with Calomel?

When from the poet's plinth
The amorous colocynth
Yearns for the aloe, faint with rapturous thrills,
How can he hymn their throes,
Knowing, as well he knows,
That they are only uncompounded pills?

Is it, and can it be,
Nature hath this decree,
Nothing poetic in the world shall dwell?
Or that in all her works
Something poetic lurks,
Even in Colocynth and Calomel?
I cannot tell.

The country practitioner not only knows when and where the robins nest and where the wood pigeons breed, but he knows where the smart young graduate has located at the cross-roads, who is up in microbes, toxins, serums and antiseptics, who has the skill and ability to perform any operation which can be done outside of a hospital, and whom he recognizes as a probable formidable rival sometime in the near future. He knows the doctor of the old school, whom it is an honor to know and who are unfortunately becoming scarce, even in the rural districts. Ah, gentleman, the world will be the loser when they are gone. I know several of them, and it grieves me sorely to note that their eyes are growing dim and their hands unsteady. It was my good fortune about fourteen years ago to spend two weeks in the Boston Mountains of Arkansas with a genuine type of the doctor of the old school. He was a graduate of the University of Pennsylvania, early in the century, and had lived in the same community for forty years. When he first began to practice, the nearest drug store was forty miles away. He gathered many of his medicines and prepared them from indigenous herbs; Leptandre, Cinicifuga, blood-root, pleurisy-root, boneset,

fluxweed, witch hazel and various other medicinal plants were well known to him. If you will turn to "The Doctor of the Old School," in "Beside the Bonnie Briar Bush," by Ian McLaren, you will find a description of this type of the country practitioner, which is true to life. The country practitioner also knows the habitation of the "old Pill Garlic," whose female patients all have prolapsus uteri or ulceration of the womb. Who gives ten to sixty grains of calomel at a dose to act on the liver and stir up the secretion. I do not know that I can indicate a class of cases and a class of doctors which the country practitioner, who does much in the way of surgery and consultations, comes in contact with, better than to set forth a few actual experiences.

Not long ago I received a message by telephone to come twenty-two miles in the country and bring all my instruments. I asked what was the matter, and was informed that it was a case of labor and that there were three doctors in attendance. That the child had come feet foremost and that the doctors had pulled off the baby's head and they wanted me to come and deliver the head, and come quick. I ordered my best team and ate a hasty supper while it was being hitched. I was soon on the road. The night was an ideal one. The road was perfect for a country dirt road. The sky was clear and the moon about the third quarter. It was about the middle of August and the night temperature about right for swift driving. I was soon at the village from which the message was sent. I was informed that the patient was about two miles further on. A guide was awaiting me, who conducted me by way of the hill country through the farms. To use his language, it was "about two miles nearder and they want you to hurry cause Miss Johnson's mighty nigh dead." I hurried as fast as I could through corn fields, orchards, and across meadow lands. I arrived about nine o'clock. One doctor met me when I alighted from my buggy, and informed me he could have effected the delivery without any trouble if he had had the necessary instruments. Another met me at the front gate and made the same statement. The third was about half way from the gate to the house, he reiterated what the first two had said. Before I could get in the house the father of the patient pulled me off to one side and said: "Now Dock, this is my only gal; I want you to do your best and I will see you well paid." The poor fellow had not a dollar in the world, and I am confident twenty-five dollars would have been a liberal estimate for his entire possessions. The husband was in the same category as to worldly goods. He said nothing, however. He stood off to one side with a kind of guilty expression on his countenance. I think he felt as if the community held him responsible to a certain extent for the trouble. I went in. The house consisted of a single room about twelve by fourteen feet, to one side of which a shed about eight feet wide had been built. The furniture consisted of one bed and three or four rickety chairs. The room was lighted by a single little old smoky coal-oil lamp. The patient was a primipera, thirty-four years old, about five feet five inches tall, and weighed not less than three hundred pounds. She was the fattest woman I ever saw outside of a side show. This was Monday night, and labor had begun on Friday. An old physician who lived in the village nearby, and who had practiced in the neighborhood about forty years had been called at the first. He continued with the case alone until Monday morning. The pains

were hard, but the head would not descend, and another doctor was called. The child was then turned, and the body delivered, but they could go no further. Another doctor was sent for, and arrived at noon: The patient was then placed across the bed, and the newly arrived doctor, who weighed about two-hundred and forty pounds, took hold of the child's hips, and, according to his statement, he put his foot against the bed and made "slight traction," when, very much to his surprise, the head came off. There was nothing in the crowd but a pair of Hodges forceps. You know that each handle has a sort of hook on the end of it. The doctor who pulled the head or rather the body off the foetus succeeded in getting the hook on the end of the forceps handle in the mouth, and pulled off the lower jaw. They then held a consultation and concluded to send for me. They gave the patient a hypodermic of morphine, and she went to sleep and rested until I arrived. She was in very good condition considering the ordeal through which she had passed. Upon inquiry, I found there was only about a quart of hot water on hand. One doctor was detailed to prepare about five gallons of a hot saturated solution of boric acid, one to administer chloroform and one to assist me. The labia were considerably swollen. I found, on introducing my hand, that when I could reach the head my arm was concealed almost to the elbow. I soon made up my mind that the head was too large to pass through the pelvic outlet, consequently it would be necessary to remove it by piece-meal. I soon found an eye, and by introducing the crochet I succeeded in removing the malar bone. The other malar bone was removed in the same way. Then the frontal bone. I then succeeded in passing my hand above, and by pressing the crochet through the scalp I was soon able to complete the delivery. Fortunately the placenda was still firmly attached. This condition had perhaps saved the patient, as no considerable hemorrhage had occurred. I then proceeded to detach the placenta, beginning at the upper margin with the ends of my fingers and removing it carefully. A long nozzle was attached to a fountain syringe and carried to the fandus, and three gallons of hot boric acid solution poured into the womb, carefully washing uterus and vagina. The bed was completely soaked with blood, amniotic fluid and fecal matter, etc. When the operation was begun, one of the neighbors was dispatched to his home for a bedstead, mattress, sheets, pillows, covers, etc. By this time the bed was ready. The patient was washed all over thoroughly, and a pad of bichloride gauze placed over the vaginal outlet, and the patient lifted into a nice clean bed. Recovery was rapid and uneventful. The point in this case is this: the attending physician should have known, when the head failed to engage, after three days labor, that it was too large, and instead of turning, should have performed craniotomy, and saved much trouble.

The first thirteen years of my medical career was spent in a village of about five hundred inhabitants, on the banks of the Missouri river. One Sunday afternoon a man who lived on what we called the "cut off" in the Missouri bottoms came and wanted me to go and see his wife, who was in labor. I knew the man. He made a sort of living by fishing during the summer and hunting skunks for their skins in the winter. This was in November, and about the beginning of the skunk season. His shanty could be reached by walking two and one-half miles and crossing over a

creek on a log, but it was about twelve miles by wagon road. There was no possible prospect for a fee, and I could not think of walking two miles and a half and spending a night in his odoriferous domicile. I told him I was busy and he would have to get some one else. I heard nothing from the case until the next Sunday night, about 10 o'clock, when he came to my house. He was in tears, and told me I must go and see Mollie or she would die. He had two dollars and two skunk skins. He said he knew where he could catch two more skunks and that I should have the skins as soon as he got them. I took the two dollars and declined the skins and went. I am free to confess that I might not have carried so much enthusiasm into the trip if my wife, who is a good Methodist, had not insisted and promised that if I failed to get a fee the Lord would reward me. The night was as dark as the proverbial stack of black cats, and there was a drizzle from the clouds which froze as soon as it touched the earth. I got a lantern and my obstetrical bag and started on the two-and-a-half mile tramp. I found an old doctor in attendance, who had recently located in the village, and who stated that he had seen the case first a week ago. He said that the patient had pains beginning about nine o'clock every night and ceasing about midnight; then beginning about nine A. M. and ceasing about noon. That this had continued with slight variations for a week. He had had an extensive experience with "grannie cases," but this capped the climax. I made an examination, and said to the doctor the membranes have not ruptured? "Oh, yes;" said he, "the waters broke a week ago to-night." A further examination convinced me that it was a hydrocephalic fœtus. I punctured the head, and a large amount of water escaped and the labor was completed in a few minutes, without any trouble. I douched the uterus with a hot boric solution, and Mollie was out of bed in two weeks.

Another case of hydrocephalic fœtus occurs to me. I was sent for on Saturday night to go about twenty miles by rail to see a case of complicated labor. I found two physicians in attendance. The patient was a primipera about twenty years of age, who had been in labor since Wednesday. She was in the midst of a hard bearing down pain. When I arrived the perineum was budging slightly, and I gave it as my opinion that a few pains would complete the labor. The doctors told me that I should make another examination, after the pain ceased, before I gave my opinion. I found when the contractions ceased the head retreated completely above the brim of the pelvis. I made a diagnosis of hydrocephalis and punctured the head, which discharged about a gallon of water. The delivery was completed in about three minutes, and within about fifteen minutes after I entered the house. The child had been dead about forty-eight hours. The uterus wat douched with hot boric acid solution. The recovery was rapid and uneventful.

A child about four years of age was brought to me from Bowling Green prairie, about twenty-five miles east of, in an adjoining county, to have a truss fitted. The father of the patient stated that three different doctors had tried and could not adjust a truss so as to retain the hernia. He gave the names of the physicians. I knew them all. They were regarded as good doctors. I examined the child and found a hydrocele and no rupture. About three years after another child was brought from the

same neighborhood. His father stated that he had tried five doctors and none of them were able to reduce the hernia. He said they had told him an operation was the only hope. The child was five years old and seemed to be well. I found a very tense swelling of one side of the scrotum, which proved to be a hydrocele.

A lady called at my office to consult me about her brother. She said he had been at work in St. Louis, and was taken sick with pneumonia in July. He stayed at the Mullanphy Hospital until October, when he was sent home, with the report that he had consumption and would die in a few weeks. A doctor was called, who lanced what was supposed to be a small boil on the left side of the chest. Some yellow, stinking fluid, with some small white lumps, about the size of a grain of rice, was discharged. The doctor very gravely informed her that his time was very short, indeed, that what was being discharged was the contents of his stomach. I told her she surely misunderstood the doctor, but promised to see him the next day. On the way to visit the patient next day the doctor told me he had made an opening between the seventh and eighth ribs, and at first he thought the opening lead to the stomach, but after looking up the anatomy when he retruned home at night, thought he might be mistaken. This proved to be a case of empyema, which nature was making an effort to cure. Two inches of a rib was removed and the man made a rapid and complete recovery, and is now working as stonemason in St. Louis.

I could multiply cases of this kind into a long list. All these doctors were graduates in medicine, and from colleges of good reputation. I am happy to be able to state that none of them were railroad surgeons. They had had an experience varying from three to forty years, and were of good reputation as practitioners. While we ought not to expect them to have had the instruments, and, perhaps, not the skill, to operate on these cases, we surely have a right to expect them to be able to make a diagnosis in the cases mentioned. There is not enough surgical work in the country to justify every practitioner to equip himself in the way of the necessary instruments and appliances, and it is impossible for all of them to attain even a reasonable amount of that skill which is born of practice.

I do not claim that even a respectable per cent. of the cases and the physicians that the country practitioner comes in contact with are of the type mentioned, but a sufficient number are met with to emphasize a statement made by Doctor Billings in a recent article in the *Forum* on "Medicine as a Career." Doctor Billings says: "This country is in no need of men possessing the diploma of Doctor of Medicine; it already has at least 20,000 more of them than it requires, or can properly support; but it does need several hundred—say 1000 more properly trained physicians."

Located.—Dr. R. E. Farris, formerly of Anna, Ill., has moved to Roswell, N. M., where he will practice his profession. The doctor writes that Roswell is an ideal place for consumptives. Any of our readers who have cases of phthisis will do well to place them in the hands of so competent a physician as Dr. Farris.

TUBERCULOSIS CUTIS.

By A. H. OHMANN-DUMESNIL, of Saint Louis.

TUBERCULOSIS of the skin, in general terms, is simply a cutaneous trouble, which owes its origin to the bacillus tuberculosis. The manifestations of the process vary in quite a degree, and have been given different names. Clinically, they are, without doubt, quite distinct in character and different in evolution. The pathological changes in the tissues also differ materially; and it is in their etiology alone that they are not only symmetrical but identical. For careful search has revealed in all of these the presence of the specific bacillus so characteristic of tuberculosis. Lupus is one of these forms; but, as it has already been considered in a separate article,[1] there is no necessity of alluding to it here. Lupus erythematosus will not be taken up, from the fact that its cause being the bacillus tuberculosis has not only not been definitely established, but is a question which is still under discussion, and the partisans of its tuberculous origin are opposed by as great a number of equally capable investigators. So that the troubles to be taken up in this communication will be limited to true tuberculosis of the skin, the so-called scrofuloderma and verrina necroganica, which together embrace all the cases of tuberculous affections of the skin, with the possible exception of a few isolated, rare conditions. These latter are not sufficiently numerous to justify extended or detailed descriptions, which would not, in any event, be sufficiently comprehensive to permit a case to be easily recognized. In any event, in case of doubt, a microscopic examination would be necessary, and this would clear up any question existing in regard to the cause of the trouble.

True tuberculosis of the skin, whilst a rather unusual disease, is not necessarily confined to tuberculous individuals, but may occur in any one as a result of direct tuberculous infection. There is no doubt that all cases of this form of tuberculosis are extrinsic in origin; and even in those suffering from pulmonary tuberculosis it is the result of auto-infection. It differs in them from the same trouble in other individuals, from the fact that it spreads more rapidly and involves the tissues more deeply. There is also a greater destruction of tissue. The disease, however, is not rapid in its evolution, but, rather, insidious; yet it is progressive; and it will positively not heal spontaneously. It is more or less painful, and is characterized by a rather large amount of suppuration, the granulations which spring up bleeding readily at the merest touch. If the individual attacked be in a bad general condition, the edges of the ulcer will become undermined. But this is not necessarily the case in every instance.

The following description of a case may prove of more interest to the

[1] TRI-STATE MEDICAL JOURNAL, January, 1897.

reader than general remarks upon the disease: The patient, who was a single woman of twenty-six, had suffered for some few years from tuberculosis of the lungs. At the time I saw her, she was under treatment for her lung trouble. The cutaneous tuberculosis existed upon the hands and arms. Upon the right hand, situated over the metacarpal bone of the index finger, there existed an ulcerative lesion about the size of a silver dime, and it was surrounded by a reddened, infiltrated areola as large as a silver dollar. The ulcer had a rather ragged border, which was markedly infiltrated. Its floor was rough and irregular, and there existed a moderate amount of glairy, muco-purulent secretion, which had a slightly fetid odor. The infiltration, which was quite thick, gradually shaded off, the areola also becoming paler, until, a short distance from the central lesion, it blended into the normal skin. Upon the left hand there existed a lesion similar to that located upon the right, except that it was situated between the metacarpal bones of the ring and little fingers. The elevated portion of the lesion was somewhat larger than that upon the right hand, although its contour was not so irregular. The infiltration was as well marked, but the areola surrounding it was smaller. Near the web between the ring finger, and more distal than the lesion just described, there existed an infiltration of the skin, the whole having a reddened, roughened appearance, and leading to the very natural view that a new lesion was in process of formation. A good general idea of the condition which was present may be obtained by consulting Figure 1. So far as the secretion was concerned, a condition analogous to that in the right hand was found, although there did not exist so great a destruction of tissue, apparently. Upon the right forearm, a little below and internal to the epicondyle, a lesion about the size of a dollar was present. The infiltration, however, was not developed to the same extent as upon the hand, but the areola was as extensive, the secretion being much less in quantity. Upon the left arm, situated at a point about an inch and a half below the epicondyle, and rather upon the anterior surface of the arm, there was a lesion similar to that upon the right arm. It differed from the latter in being larger and slightly more infiltrated.

The diagnosis of this form of tuberculosis of the skin is often a very difficult matter to establish, and should never be positively made unless equally positive means be adopted to confirm it beyond all doubt. In the case just related a positive refusal was made to the request to excise a piece of the implicated cutaneous tissue for the purpose of making a microscopic examination. But the secretion from the lesions, being submitted to an examination, revealed the presence of tubercle bacilli in numbers, thus verifying the diagnosis which had been made. The differential diagnosis in such cases is best made by exclusion. Syphilis and lupus are possibly the only diseases which might be mistaken for ulcerating tuberculosis of the skin. The history, however, will usually be sufficient to determine the difference, if proper care be taken to note exactly the actual condition. Of course, a microscopic examination of the implicated tissues is a radical method of arriving at a positive conclusion. In lupus, which is possibly the only disease which might be mistaken for tuberculosis, there is marked pain, and its onward march is centrifugal. It does not remain stationary for any length of time. The infiltration is not so well marked in advanced

cases, and whilst the destruction is progressive, there is not so much secretion; and there is one factor connected with the trouble that is marked, viz., the formation of apple jelly-like nodules. Moreover, lupus cicatrizes at the center, whilst ulcerating at the periphery; a condition never seen in tuberculosis of the skin.

The etiology of the trouble in the case just narrated was directly traceable to auto-infection. She had the habit of expectorating in a handkerchief, and of keeping this in contact with the integument of the hand and of the arms, which she nearly always had folded. Upon inquiry of a sister, it was found that the handkerchief was always pressed upon the skin at those localities which presented the lesions which were observed.

FIG. 1. True Tuberculosis of Skin. (Autoinfection.)

The moisture, caused by the saliva, naturally softened the skin, and this afforded an easy point of entrance for the infecting material.

A more common affection of the skin due to the bacillus of tuberculosis, and rather intrinsic in character, is scrofuloderma, as it is most generally called. We may daily see examples of it, as it occurs in children and adults; and it is distinct evidence of what was formerly known as scrofula, and still called that by many medical men of to-day. It has been popularly supposed to be an indication of parental syphilis removed two or three generations. Pathological research has conclusively shown that so-called scrofula is merely but a form of tuberculosis; and scrofuloderma is one of

the numerous forms of tuberculous involvement of the integument. Not only is this capable of demonstration by microscopic examination of the tissues implicated, but even the secretions are found to offer indubitable evidence of the fact that a localized tuberculosis exists. Individuals who are affected with scrofuloderma present the salient characteristics of struma, as it is called. They have a fair, delicate skin, hair inclined to be light in color, and more or less scanty in quantity. As a rule, they are puny in build, and have small bones. This is not an invariable rule, however, for those who are dark-haired are very apt to be strong in their physique, in spite of their struma. The eyelids, however, are rather thicker than usual, the eyelashes longer, and a general lymphatic appearance manifest. The mucous membranes are very susceptible to inflammatory troubles, which do not rapidly recover, but manifest a tendency to assume a chronic condition. As an evidence of lymphatic disturbance due to the peculiar process which is going on, it will be found that there is an enlargement, without appreciable induration, of the lymphatic glands. It is those about the neck which are principally involved; and, of these, it is those on the lateral and anterior portions which are most markedly and deeply implicated, as evidenced by the degenerative changes which may be observed.

In the course of the process the glands undergo more or less marked changes. The contents become broken down, and caseous degeneration sets in; and this is accompanied by suppurative changes; and the pus, burrowing in the connective tissue, attacks the skin, producing more or less destruction of that structure. This process is irregular in character, and the contours of the destroyed portions are ragged-looking, and the ulcers which are formed have an unhealthy appearance, with a reddened border and more or less undermined edges. The secretion of pus is characteristic of the changes going on. It is thin, containing a certain amount of sanious matter; and, occasionally, a mucoid, viscous accompaniment which makes it more or less stringy in nature. Scrofuloderma, in the majority of instances, has a tendency to heal spontaneously. This process, however, is always manifested by thickened, irregular, corded scars, as shown in Figure 2. At the outset these scars are pinkish, but, later on, they become white, and the skin surrounding them has a more or less livid hue. Neither the scar nor the skin is of good material, and it is not unusual to observe a breaking down and the original suppurative condition recur, with greater destruction than it has manifested before. Pain is an accompaniment of the disease, more especially when a large area is involved. Ordinarily, the pain is seen in those cases in which the neck is involved, as it is being constantly subjected to the irritation arising from the friction of the clothing. Not only this, but the secretion causes the clothes or dressings to adhere tightly to the ulcerated surface, and their removal or accidental tearing-off increases the pain in a marked degree. Occasionally, complications occur, such as are found in cases of struma. The mucous membrane of the mouth, pharynx, and larynx becomes involved, as well as the conjunctiva and the edges of the eyelids. It is not rare to see an eczema develop in connection with scrofuloderma; and it usually assumes a chronicity of a marked character, due to the quality of the soil upon which it is developed.

The third variety of tuberculous affection of the skin to which allu-

sion has been made, is the verruca necrogenica, dissection wart, or post-mortem wart. This is of extrinsic origin, and is peculiar from the fact that the tuberculous affection produces a verrucous lesion which never ulcerates or spreads. These growths have a tendency to be dark in color, and vary in size from a pin's-head to a silver half-dime. They are never

FIG. 2. Scrofuloderma. (Superficial.)

annoying, and there is never any pain observed in connection with them. They are often observed, most frequently, upon the hands of those who are demonstrators in dissecting-rooms, or who handle fresh cadavers in pathological or post-mortem work. If one of the growths be excised and sections made, it will be found that it contains tubercle bacilli. The

growth is a very peculiar one, from the very fact that it always remains quiescent. The number may be limited to one or two, or there may be as many as one hundred on the hand. It is the dorsal surface which is affected. The verruca necrogenica is very slow to develop, but once it has established itself, it is many years before it disappears spontaneously.

In true tuberculosis of the skin it is absolutely necessary to give a general treatment directed against the tuberculosis of the lungs, which is almost always an accompaniment. This is one of the essentials to obtaining any sort of improvement in the local condition. For if the entire organism is not placed in the best possible condition to resist the encroachments of the disease, the localized forms will certainly not be capable of resisting the onward march of the infectious process. The general treatment will not be touched upon here, as it is too extensive a subject. Locally, two objects are to be attained—cleanliness and the prevention of the spread of the process. Cleansing the affected area thoroughly with peroxide of hydrogen is the first step to the accomplishment of this. Then an impermeable dressing placed over the dressing will accomplish further good. The choice of a dressing is certainly a difficult matter, and must be guided by the conditions present in each particular case. In those instances in which the process is not too deep, I have found iodoformin sprinkled over the implicated area daily to act very well. It has the effect of preventing the further proliferation of the bacilli, and the peroxide of hydrogen destroys their activity. Some have employed the thermo-cautery, which is efficient, but produces ugly wounds. Pyrozone solution, in the strength of twenty-five per cent., is very effective in its cauterizing action also, but should be followed with one in five hundred impermeable bichloride dressings. This will be found of great value. An unfortunate circumstance is that all these cases apply so late that they succumb to phthisis pulmonalis before the local trouble is healed or very shortly after this has been accomplished.

In scrofuloderma, internal treatment is of no less value. It has the advantage of being seemingly more beneficial than in true tuberculosis. It is unnecessary here to mention the general treatment of struma, which is well enough understood. It must be thorough, however, or no good results can be hoped for or obtained. So far as local treatment is concerned, various methods may be pursued. When the process is in its inception, the enlarged glands should be excised and the cavities thus made thoroughly curetted, so as to eliminate any infective or infected contents, as these seem to exercise a destructive action upon the surrounding tissues. When the process has advanced to the ulcerative stage, the same measure should be followed; and, in addition, it should not be forgotten to scrape well the edges of the ulcers. Having thoroughly cleaned out the affected tissues, dressings of an antiseptic nature will be found advantageous in procuring good and rapid results. The dressings to be employed should be the same as in true tuberculosis, and the method pursued also the same. Good results may be expected and better results obtained. The local process is not as stubborn, and the general condition yields more readily to medication, thus insuring a better and quicker final outcome. Whilst it is not the rule to observe suppuration follow this treatment, it will be found best to repeat the dressing daily, in order to prevent any

possible complication of the sort, as well as to obtain a more rapid healing of the trouble. Whatever slight local complications may arise should be treated on general surgical principles. If the treatment outlined be strictly followed, however, it will be found that no such occurrences will take place.

Verruca necrogenica is a much more simple matter to deal with, and the treatment is purely local. Among the measures recommended and employed are curetting or excising the lesions and cauterizing the base of each with nitric acid, chromic acid, or nitrate of silver. A much more pleasant and equally efficient method, which leaves no scars if properly performed, is the removal of the growths by means of electrolysis. If a sufficiently strong current be employed, it will not be necessary to repeat the operation, and a permanent cure will have been effected.

The prognosis of true tuberculosis of the skin is always doubtful or bad: it is generally good in scrofuloderma: and always most excellent in verruca necrogenica.

HISTORICAL SKETCH.

A LETTER AND THE MEMORIES ASSOCIATED WITH IT.

By Frank Webster Jay, M. D., of Chicago.

Instructor in Surgery in Rush Medical College.

A BOOK-BUYER who enjoys the pleasure of searching for such books as he desires, gives little attention to the glass case, which occupies a conspicuous position in nearly every book store, and which contains the volumes the proprietor considers treasures; for

"In dismal nooks, he loves to pry,"

and passing the more prominent rows of books, he seeks those remoter shelves upon which, after more or less search, he may be able to find among

"The musty tomes, the speckled prints, the mildewed bills of play,
And other costly relics of malodorus decay,"

some work unnoticed or unappreciated by the owner of the store, which gleams like a diamond all the brighter in a somber setting, and whose price will be within the limits of a poor man's purse.

This accounts for my presence one winter afternoon in the darkest corner of a second-hand book store in this city, examing a row of dirty volumes, among which I came across a dilapidated copy of an English translation of "Boerhaave's Aphorisms." Lying loosely between its pages I found an age-browned letter. It was addressed to T. Tronchin.

The face of Theodore Tronchin was familiar to me, as I had in my possession an engraving of an eighteenth century physician by this name. Although I was but slightly acquainted with the part he had played in the history of medicine, any one who is aware of the most worthy of my failings will appreciate that I desired that letter. Assuming that innocent expression characteristic of one endeavoring to convince a seller that he does not at all desire to possess the article he is inquiring about, I asked the pro-

HERMAN BOERHAAVE.

prietor what the letter might be, and was informed that he didn't know, and that I was welcome to it.

That evening I investigated the letter, and soon became aware that it was of more interest than arose from its having been addressed to Theodore Tronchin, for the signature of the writer, and a composition with a *fac-simile* letter in "Pettigrew's Medical Portrait Gallery" demonstrated that the hand that guided the pen was that of Herman Boerhaave, a physician who occupied a much more prominent position in the temple of fame than Theodore Tronchin. I discovered that I had rescued from obscurity in Chicago, in 1897, a letter written in far-off Leyden, in 1738, by one of the great-

est physicians of modern times; that in a begrimed and neglected volume upon the darkest shelf of a second-hand book store, I had found a letter written by the leader of the medical profession during the early part of the eighteenth century. It was soon evident that the letter contained nothing to give it intrinsic value, and many would have taken little interest in it, but I do not feel hesitant when I say that it was dear to me as the relic of a correspondence between two renowned physicians, whose pens and voices have been still in death for more than one hundred years.

Macaulay explains how the finding of an unimportant manuscript of Milton stimulated him to write his great essay upon the English poet, by saying that "The dextrous Capuchins never choose to preach on the life and miracles of a saint till they have awakened the devotional feelings of their auditors by exhibiting some relic of him—a thread of his garment, a lock of his hair, or a drop of his blood." And when I placed this letter between the engraved portraits of Boerhaave and Tronchin, before me, while reading of the lives of the two physicians, it seemed to bring the men into the vital atmosphere of memory. I frequently speculated regarding the relations of the correspondents, and from speculation I came to investigation, to the extent of noting, when opportunity offered, facts which related to the association of Boerhaave and Tronchin—an association which had been a friendship for eight years at the time this letter was penned, but which was to come to an end eight months later, when its writer, Herman Boerhaave, breathed his last.

I have learned little, because no thorough search has been made through historical records. I have used only those idle moments which it is a recreation to spend in exploring the biographical sketch of some physician, a recreation as pleasant and profitable as a trip through an old castle on the Rhine, or a journey in an unfrequented land. A thorough search would yield but little regarding the life of Tronchin during the eight years between his meeting with Boerhaave in 1730 and the year 1738, in which this letter was written and Boerhaave died. There is no extended review of the life of Tronchin. History has something to say of him during the period in which he was a conspicuous member of the medical profession in Paris, and renowned throughout Europe, but he did not attain to this until years subsequent to the date of this letter.

The letters of John Hunter to his pupil and friend, Edward Jenner, have become historical, and much can be learned from them regarding the peculiar character of the great pathologist. Boerhaave and Tronchin can not be compared in importance to Hunter and Jenner, and there are no statements of value in this letter, but it becomes of more than curious interest when there are associated with it such memories as cling about a manuscript or portrait—incidents in the life of the writer, or whose features are represented; memories which render manuscripts and portraits of far more value in the study of history than many appreciate.

When I was informed that I was to be honored with the position I occupy this evening, I concluded that there was no way in which I could give truer evidence of my appreciation of the character of the members of the academy, or reverence for the memories of the two physicians of the past, than to associate with this letter a few facts from the lives of Boerhaave and Tronchin, which, in showing the friendship existing between

the correspondents, seem to have some relation to this old letter. The letter has been reproduced, as well as engravings of Boerhaave and Tronchin, and by connecting them with the remarks I have to make, there has resulted a more substantial token of my appreciation of the privilege of becoming a member of the Chicago Academy of Medicine. These I hope you will accept in honor of Hermann Boerhaave and Theodore Tronchin, for I am certain that these two celebrated physicians of a century and a half ago would not ask for different surroundings in which might occur a resurrection of this old relic of their friendship. It is true that a letter addressed by a Chinese Mandarin to Hermann Boerhaave, Europe, safely reached its destination, but it is equally true that there are members of this academy whose renown throughout the world is such that their mail, if directed from any country, simply in the care of the United States, would safely reach them. I gratefully offer this testimonial to the brotherhood of great men which binds all ages.

In the year 1725 a young man, sixteen years of age, a native of Geneva, but who had been living for some time in London with his relative, Lord Bolingbroke, entered upon his medical studies at Cambridge. His name was Theodore Tronchin. While at Cambridge, he heard much of the learned physician and teacher, Hermann Boerhaave, who had been at Leyden since 1701, and who was then in the fullness of his power. A man whose general erudition had made him famous, and who was renowned in the medical world from having held forth Hippocrates as the model all students of medicine should follow. Urging the use of rationalism in medicine, he was yet one of the chief supporters of the mechanical sect of physicians. In 1725, when Tronchin entered Cambridge, Boerhaave was Professor of the practice of physics, institutes of medicine, botany and chemistry at Leyden, constituting in himself a medical faculty. He had upheld and practiced clinical teaching, which he instituted at Leyden upon succeeding Bidlow as professor of the practice of medicine in 1714. Widely renowned as a teacher, he was drawing students to Holland from all parts of Europe, and Tronchin left his English university to place himself in the classes of the Dutch professor.

The attitude of Boerhaave toward his students is well known. He joined to his duties as professor an intimate friendship for those members of his classes who showed themselves worthy of it. Portal says he treated them as though they were adopted children, leaving his most brilliant patients at any time to attend them when they were ill. Tronchin arrived at Leyden with a letter of recommendation from his relative, Lord Bolingbroke, but he must have been possessed of more than this to create in Boerhaave the interest with which the professor regarded the student from the first, for Van der AA in the *Biograpisch Woordenboek der Nederlanden, Haarlem*, 1876, states that after Tronchin had been at Leyden a short time, Boerhaave began to assign some of his practice to the young man.

[TO BE CONCLUDED.]

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COAL-DUST AND CONSUMPTION.

Recently an article appeared in the *Koelnische Zeitung* calling attention to the influence of coal-dust on consumption:

"According to Hirt, tuberculosis affects 26 per cent. of ailing workmen who constantly breathe inorganic dust, 17 per cent. of those who breathe organic dust, 11 per cent. of those who breathe no dust at all, and only 1.3 per cent. of those who breathe coal-dust. Moreover, from inquiries that have been made, it appears that, in a space of ten years, out of 1000 men belonging to the German Miners' Provident Association, 1.1 per cent. in Upper Silesia, 2 per cent. in the Saar district, 1.8 per cent. in that of Bochum, 5.1 per cent. of those engaged at the Krupp works, 3.2 per cent. of those at the Borbeck zinc works, and 2.3 per cent., on an average, of those employed on two large railways, died of this malady; which goes to prove that a smaller number of men are thus overtaken in the colliery districts, while it is even found that the death-rate is far higher among those breathing the pure air of forests. To a certain extent, therefore, coal-dust in the mine may be credited with a certain protective influence; but it must, on account of its nature, and, therefore, also its action on the respiratory organs, be distinguished from that of iron-works, the former being damp and soft, while the latter is dry, hard, and to a large extent mixed with iron particles; so that the worker in factories is

far more exposed than the collier to affections of the mucous membrane and of the bronchial tubes, and therefore to the ingress of tubercular bacilli. At any rate, a *post-mortem* on miners who have worked long underground, shows that the lungs are permeated by coal to an unexpected extent, while nearly all miners exhibit a black expectoration. Moreover, many examinations of mine-hands affected with chronic pulmonary catarrh generally showed that the tuberculosis they expected to find was not present."

ILLITERATE DOCTORS.

The *Iowa Health Bulletin* prints letters which show some of our brethren to be as eccentric in spelling as in pathology. Here are a few examples:

"———, June 8, 1896. Dear Sir,

"Yours received I treted Wm. Akens after he cum Hoam from the serfis for polypup in his nosee and Running soar in his pastur. The polypup from the nite are and exposure the wondé cum from the cick of a hoars. ———, M. D."

Here is one in which the learned doctor appears to be confused in his dates, as well as in other elements of knowledge:

"———, February 30, 1897, Sur,

"I surtify I treted the sed sojer fum 18888 to Date——foarmerly his stumik tub was jined to his nervious sistem but now it air rotted off cosing grate expectoring and hard of breth.

"Your Obt. servent ———, M D."

The name of the place and that of the certifying practitioner are given in each case. But the pensioner can speak for himself, as witness the following application, in which another therapeutic effect of the pension is hinted at:

"Martch 20, 1896. Presedent of the Pensioners. i let you no i wor treted by a root and erb doctor he give me running milk week for running soar and no avale——iff my clam is loude i can voate weth a free conchents."

We would suggest that the *Iowa Health Bulletin* print the names of the medical colleges at which the erratic M. D.'s graduated.

VEGETABLE DIET IN DIABETES.

A new treatment for diabetes is that advocated by Professor Pielro Lupo, of Naples. He has recorded two cases in which all the diabetic symptoms have been relieved by making the patients adopt an exclusively vegetable diet. In one case he affirms that the results of this treatment were truly marvelous. Both sugar and albumen disappeared from the urine, gangrene was arrested, and the "cure" completed in eighteen days. The news sounds too good to be true, and time only can show whether other practitioners will obtain the same results. In the vegetable dietary nothing was excluded, all edible soups were allowed, together with peas, beans, and saccharine fruits, including grapes. Professor Lupo does not claim that all diabetics will be benefited by the treatment, but he believes that it will prove of great service to many. If his assertions come to be established, the dietary of diabetics will have to be completely changed,

greatly to the advantage, perhaps, of the unfortunate sufferers from this distressing malady.

AN OSTEOPATHIC LIE.

Many sharp methods have been resorted to that osteopathy might be the gainer. One of the most recent attempts to hoodwink the public is explained in the following letter, written by Dr. J. A. Egan, Secretary of the Illinois State Board of Health:

"SPRINGFIELD, June 6, 1898.

"*To the Editor:*

"A concern in Chicago, claiming to teach the alleged science misnamed osteopathy, makes the following remarkable statement relative to its so-called courses in circulars which have been sent broadcast over the country:

"'Terms of study are so graded, and the course of study so broad and complete, that they comply with all the requirements of the Illinois State Medical Board and allow our students two years' credit on a regular medical education. These credits are recognized in any medical college in this country, and will be equivalent to two years' work done there.'

"If by the 'Illinois State Medical Board' is meant the Illinois State Board of Health, the assertion made in reference to that body is a lie in the fullest acceptation of the term. It is not true, furthermore, that the 'credits' named are recognized in any medical college in this country. On the contrary, it is exceedingly doubtful if a single reputable medical institution will grant any advanced standing whatever to applicants from this and other 'colleges' of similar character. Should, however, this be done, it is needless to say that the institution or institutions concerned will receive no further recognition from this Board, and it will be remarkably strange if the various State Boards of Medical Examiners throughout the Union will view such irregular proceedings with complacency.

"As the circulars are calculated to deceive the unwary, and to cause prospective graduates in medicine to waste two years of time, I will ask you to give this letter a prominent place in your journal, so that the facts in the case may be widely disseminated. J. A. EGAN, M. D.

"Secretary Illinois State Board of Health."

SPANISH MEDICAL ORGANIZATION IN CUBA.

Dr. Angel de Larro Cerezo, surgeon-general of the royal troops in the island of Cuba, has issued his report on the sanitary condition of the Spanish force in the island during the year 1896, which has just been printed at the War Office, Madrid.

The report is very short, consisting of forty large octavo pages, and an appendix which contains nineteen maps and numerous diagrams.

Dr. Angel de Larro Cerezo commences his report by stating "that of all the organizations necessary for the welfare of an army, the smallest and most complex is the sanitary," and he goes on to add that the difficulties that are inherent to the discharge of the medical duties are greatly increased, when, as in Cuba, the troops are scattered over a large territory which is unprovided with roads, and in which malaria and yellow fever are endemic. It is not surprising that of the 200,000 troops landed in Cuba

during the year, fifty per cent. were invalided in the first two months of their arrival.

Early in 1895 hospitals were built in every province of the island, twenty-five new sites being named. The building of infirmaries and hospitals was continued during 1896-97 until in the latter year 45,685 beds were ready for the reception of patients.

Of the hospitals of 1,000 beds and over there are the Royal, 5,000; Alphonsus XIII., 3,000; Manzanilla, 3,000; Beneficiencia, 2,100; Santiago, 2,000; Sancti Spiritus, 2,000; Ciego, 1,700; Cienfuegos, 1,450; Remedios, 1,400; Holguin, 1,300; Mudera, 1,100; and eight others with 1,000 beds each.

In 1895, from March to December, 49,485 patients were admitted; in 1896, from January to December, 232,714 were admitted; and in 1897 the admissions from January to June rose to the dreadful figures of 201,247. Of those admitted to hospital 3,200 died in 1895; 10,610 in 1896; and 3,691 in the first six months of 1897. In the thirty-two months included in the statistics 17,501 deaths took place. Of the patients admitted to hospital during 1895, there were 7,034 suffering from yellow fever, the admissions from which reached 23,580 in 1896 and 4,636 in the first six months of 1897; making a total of 35,250 cases of yellow fever, of which 11,347 died—2,777 in 1895; 7,309 in 1896; and 1,261 in the first six months of 1897. And it is to be remembered that this terrible death-rate takes no count of the deaths from this fever which occurred in the civil hospitals, the private residences, and the villages throughout the island.

Wounded treated in hospital in 1895 numbered 11,902; in 1896 they were 7,270; and in 1897 fell to 2,645; of these 1,989 died in 1895; 363 in 1896; and 160 in 1897. Of malaria, dysentery, typhoid fever, and tuberculosis, the exact figures prior to 1896 cannot be given, but for the year extending from June 30, 1896, to June 30, 1897, the following statistics can be depended on: During the time mentioned 79,552 cases of malaria occurred of such severity as to necessitate the patients being sent to hospital. Of these 515 died. In the same year 7,393 cases of dysentery were admitted to hospital, and of these 811 died. Typhoid fever cases in hospital during the same period numbered 2,903, of which 576 died. 2,281 cases of tuberculosis were admitted during the year, of which 299 died.

The surgical arsenal appears to be well supplied. Among other items we find it contains 600 Pravaz syringes, 500 lancets, 850 Ferguson's forceps, 4,500 sounds, 800 syringes, 500 irrigators, 42 chests of surgical instruments; bandages, splints, and so forth are counted by the tens of thousands.

The most modern of the hospitals of Cuba is the Alphonsus XIII., built in 1895. The hospital is situated about two miles southeast of the city of Havana, on a gentle incline overlooking the Caribbean Sea. It consists of one hundred separate pavilions, not counting the large convalescent annex which was completed in June of 1897. The pavilions are divided into groups for surgical cases, operations, infectious diseases, isolation, and so forth; each group has a separate staff and its own servants, cooks, dispensers, and laundry maids. All the buildings are lit with electricity, for the generation of which the hospital has its own plant.

In the first two years of its existence 80,000 patients were admitted into its wards, and more than 1,000 operations performed.

In the first two months of 1897 there were admitted 4,000 cases of yellow fever, 2,000 infectious cases from other fevers. In the year 1897 the patients admitted included 34,002 from internal diseases (nature not specified); 1,480 from yellow fever; 3,585 surgical diseases; 952 cases of wounds; 1,846 diseases of the skin; 1,074 venereal disease, and 522 cases of ophthalmia. Of these 1,056 died from internal diseases, 327 from yellow fever, 68 from other infectious diseases other than yellow fever, 37 from wounds, and 17 from surgical diseases.

The diminished death-rate for 1897 is ascribed to the increased hospital space for each patient which is secured by the early removal of convalescents to the annex and hospital ships.

The medical staff consists of twenty-six military surgeons and three civil ones; they have the services of 170 of the hospital military corps, of whom two are lieutenants, three sergeants, and twenty are corporals.

Operations were numerous. The list for 1897 includes the following:

Sequestrotomy cases: extraction of bullets, 71; resection of long bones, 60; raclage of fistula, 54; partial amputation of hand, 39; resection of carpal bones, 39; resection of tarsal bones, 11; amputation of the leg, 24; of the thigh, 24; of the arm, 10; of the forearm, 6; disarticulation of the hip, 10; of the bones of the hand and foot, 27; resection of the large joints, 11; of bones of the face 14; of the ribs and sternum, 12; craniotomy, 13; resection of ribs for empyema, 21; extirpation of tumors, 14; tonsillotomy, 1; fistula in ano, 8; and some others, which bring up the figures to 524.

The prescriptions average 3,000 a day, and employ more than 77 compounders eight hours a day in their preparation; pills and powders average 2,000 a day; infusions, 1,200 litres; effervescent waters, 200 siphons; and disinfectants from 1,200 to 1,500 bottles.

Of the medical staff 20 died in the year 1895; 15 in 1896; and 12 in 1897. The majority of these deaths occurred from yellow fever. From the beginning of the rebellion 50 physicians died, of whom more than two-thirds of the number died of yellow fever.

The Herf & Frerichs Chemical Co., of St. Louis, manufacture a line of chemicals noted for their purity. When prescribing standard chemicals specify, H. & F.

Resignation of Dr. Dalton.—Dr. H. C. Dalton, for several years professor of abdominal surgery in the Marion-Sims College of Medicine, has resigned.

Resigned From the Baptist Hospital.—Dr. Waldo Briggs has resigned from the staff of the St. Louis Baptist Hospital.

PUBLISHER'S DESK.

The Proper Treatment of Headaches.—J. Stewart Norwell, M. B., C. M., B. Sc., House Surgeon in Royal Infirmary, Edinburgh, Scotland, in an original article written especially for *Medical Reprints*, London, Eng., reports a number of cases of headache successfully treated, and terminates his article in the following language:

"One could multiply similar cases, but these will suffice to illustrate the effects of antikamnia in the treatment of various headaches, and to warrant the following conclusions I have reached with regard to its use, viz.:

(*a*) It is a specific for almost every kind of headache.

(*b*) It acts with wonderful rapidity.

(*c*) The dosage is small.

(*d*) The dangerous after-effects so commonly attendant on the use of many other analgesics are entirely absent.

(*e*) It can therefore be safely put into the hands of patients for use without personal supervision.

(*f*) It can be very easily taken, being practically tasteless."

Hints in the Treatment of Subinvolution.—Among the conditions concerned in the causation of uterine diseases, subinvolution is one of the most frequent and important. The reason for this is obvious, if after childbirth or miscarriage, the uterus does not undergo completely the normal retrograde process, if it remains enlarged, engorged with a hypertrophied mucous membrane, inflammatory changes are readily developed, and endometritis, displacements and serious pelvic disease may result. One of the chief obstacles to efficient local medication has been the lack of a topical remedy which could be safely entrusted to the patient. This want has now been fully supplied in Micajah's medicated uterine wafers. These wafers are cleanly, unirritating, easily applied, and thier ingredients exert a depleting effect upon the engorged mucous membrane of the uterus; establishing normal circulation, and thereby causing the absorption of exudates into the tissues and aiding the natural process of involution.

Dr. Bayer, Assistant at the Polyclinic of Prof. Rosenheim in Berlin, also speaks very highly of eucaine "B" in an article published in *The Therapeutische Monatshefte*, April, 1898. He concludes his report as follows:

"Though we have used eucaine "B" extensively in the œsophagus and rectum, we have not met with a single disagreeable experience, and we, therefore, can conscientiously recommend the preparation for the purpose stated."

An Interesting Engraving.—There has just been issued a handsome engraving of an old painting of the first meeting of the Medical Society of London, which was held in 1773, and it contains portraits from life of the most prominent of the original members.

Among those represented are: Edward Jenner; William Saunders,

whose work on "Diseases of the Liver" was the authority for many years; John Aikin, a noted miscellaneous writer and the publisher of a "General Biography;" William Babington, author of a "New System of Mineralogy," and one of the founders of the "Geological Society;" Thornton, author of a "Philosophy of Medicine;" Edward Bancroft, a naturalist; Robert Hooper, who published a "Medical Dictionary;" and a number of other famous men of their day.

As this was probably the first medical society on record, and was the predecessor or the British Medical Society, the engraving represents an event of much interest to every member of the medical profession, and should prove an attractive addition to the walls of the office or home.

A copy will be mailed to any physician applying for it, by the proprietors of the tongaline preparations, the Mellier Drug Company, No. 2112 Locust street, St. Louis.

A New Vegetable Alterative Compound.—Resinol can be used "in conjunction with any internal treatment." "Any internal treatment" is a phrase of large latitude. It means, of course, a very excellent potency for the favorite unguent. But it is evident, in order to obtain the most apt efficacy, the most potent internal medicine is indicated. Modern practitioners are not content to await the tardiness of old-fashioned "physic," and the Resinol Chemical Company, of Baltimore, Maryland, well known as the proprietors of resinol, have contributed wisely to the materia medica in providing cascanata. It is an ideal preparation for the purpose. It is a scientific combination of the active principles of cascara sagrada, gentian, rhubarb, trifolium, and rumex, with phosphate of soda and magnesia. The term "alterative" has been abused, but this is a vegetable alterative. It is manifest that cutaneous disorders are frequently indicative of disorder of the alimentary tract in some measure or other. The elixir cascanata corrects this disorder, promotes healthy secretions, and restores the normal alkalinity of the blood. Disorders resulting from congestions of the pelvic viscera are also promptly remedied by this preparation. The attention of the medical profession is sure to be attracted to this interesting and valuable alterative compound.

True Americanism.—Physicians and pharmacists, like the masses of the people, have tired of the arrogation of superiority implied by the announcements of foreign manufacture, and are revolting against them. This spirit is especially commendable at the present time, when a vast wave of patriotism is rolling over the land, making the North and the South, the East and the West, as one band of brothers by its magic influence. The Antikamnia Chemical Company, of St. Louis, in all of its advertising matter, whether through the journals or by circular, takes particular pains to impress upon physicians and pharmacists that its goods are made in America, by Americans, and for American use. This enterprising company realizes that the words "made in Germany," or "made in France," no longer possess the influence and meaning they once had. The people of this country no longer scorn or underrate the products of their own native laboratories and work-shops.—*The National Druggist.*

OUR PHARMACEUTICAL FRIENDS.

MR. FRED. S. CARTER.

Mr. Fred S. Carter, the efficient representative of Messrs. Parke, Davis & Co., is an Englishman by birth, and a southerner by adoption. He has been with his firm for seven years, and has won steady promotions by his diligence, integrity and push. Mr. Carter is ably assisted by several gentlemen. The business of the house has materially increased in St. Louis territory since Mr. Carter was placed at the head of local affairs. Mr. Carter is thirty years of age. He is happily married and has one son.

Illinois Pharmaceutical Association.—The Illinois Pharmaceutical Association had its annual meeting at Clifton Terrace, twenty-six miles above St. Louis on the Mississippi River, June 6th, 7th and 8th. Papers of interest to pharmacists were read and discussed. A general good time including athletic events was enjoyed by all present. Among the representatives of pharmaceutical houses were Mr. F. S. Hereth, of the Searle & Hereth Co., Mr. Frank L. E. Gauss and Mr. Ben Smith representing the same concern. Representing Eli Lilly & Co. were Messrs. Quackendell and Maynard. Frederick Stearns & Co., of Detroit, were represented by Mr. E. A. Pickner. Mr. Oxley represented Seabury & Johnson, and various wholesale drug houses of this city were represented by members of the firm and traveling salesmen.

Death of Mr. Eli Lilly.—Mr. Eli Lilly, President of the well-known pharmaceutical manufacturing house of Eli Lilly & Co., Indianapolis, died June 6th, after an illness of about eleven days. He was sixty years of age, was one of the best known men in Indianapolis, and had been at the head of the house since 1876.

THE TRI-STATE MEDICAL JOURNAL AND PRACTITIONER.

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HISTORICAL SKETCH.

A LETTER AND THE MEMORIES ASSOCIATED WITH IT.

By FRANK WEBSTER JAY, M. D., of Chicago.
Instructor in Surgery in Rush Medical College.

[CONCLUDED FROM THE JUNE ISSUE.]

Little is to be learned of the student days of Tronchin, but we are certain that Boerhaave's interest in him increased as time went on, for Van der AA further states that when Tronchin graduated at Leyden in 1730, and was considering England as the country in which to practice, Boerhaave wrote a letter to some one in that country, in which he said that those in England who desired to consult him could do so without traveling to Holland by consulting Tronchin at home. Tronchin never attained to the prominence, nor has his name been as closely associated with that of Boerhaave as have those of Haller and Van Swieten—his two most famous students; but the statements of Van der AA prove that Tronchin and Boerhaave became friends when associated as professor and student. And the letter I present this evening shows that this friendship, which began when Boerhaave was sixty-two, and Tronchin twenty-one, lasted until the death of Boerhaave in 1738; consequently, during the first eight years of

Tronchin's practice and the last eight years of Boerhaave's life, Tronchin did not locate in England, but remained in Holland and began to practice at Amsterdam, and Boerhaave must have been pleased to see that, aided by the prestige his friendship gave him, and the favor of the fair six, which one historian significantly remarks Tronchin always enjoyed, his former student rapidly received a brilliant *clientele.* It would interest us to know something of the relations between these two physicians during the first eight years of Tronchin's practice; but history has little to say of Tronchin during this period, for it was not until 1748 that he became famous in consequence of advocating the practice of inoculation with small-pox virus as a prophylactic measure. Boerhaave had for years been in the habit of spending his vacations in Amsterdam with his friend, the celebrated anatomist and pathologist, Ruysch, who died in 1731, the year Tronchin located in that city, and it is likely that he continued to visit Amsterdam and Tronchin became his host. At any rate, we may imagine that the letter I have in my hand, and which bears the date of January 26, 1738, was not the first which had passed between Boerhaave and his former student; and it is safe to assume that many of them, like this one, were written in answer to requests from Tronchin for his old teacher's advice regarding obscurities in cases coming under his care.

Tronchin had remained in Amsterdam, and at the time he received this letter from Leyden had attained a position of eminence rather remarkable for a man of twenty-nine. Boerhaave was then seventy years of age. His fame had increased with his years, but physical health had not kept pace with mental vigor, and in 1729 he had been obliged to resign the professorship of botany and chemistry, and in 1731 to relinquish the rectorship of the university to which he had been re-elected in 1730.

In 1737 he was attacked with difficulty of breathing, and in a letter to Mortimer, secretary of the Royal Society, he speaks of his immoderate fatness, induced by his inability to take his accustomed exercise, and describes the symptoms of hydrothorax from which he suffered and died. (Pettigrew.) Consequently, at the time he wrote this letter, he was a sick man, and within eight months of his death. As has been previously remarked, there is little of interest in the letter itself, unless it is associated with memories which are legitimately attached to it. It is Boerhaave's answer to a letter from Tronchin, and is one of several in a correspondence relating to a case in the practice of Tronchin, and regarding which he had consulted his old friend and teacher; and in each letter, let us hope, there was enclosed a suitable fee, although Boerhaave left a fortune of two millions of florins, and did not need money in 1738. The letter is written in Latin, and one would not expect a less dignified language to have been selected by a man who had mastered this as well as Greek at the age of eleven, and who in later years could converse in Latin, English, French, German, and Dutch.

The language of this particular letter is florid and the Latin somewhat of the canine variety. Translated it reads:

To the Renowned Eminent Physician, Theodore Tronchin—From H. Boerhaave, Greeting:

I have read your first and last communications, at the same time having diligently examined into the facts concerning which I have written.

Claro, Nobilique, Viro,

Theodoro Tronchino, medico,

H. Boerhaave.

Et priorem intentis relegi, et ultimam, simul ea sedulo recensens, quae rescripsi: neque tamen vel ita demum excogitare quéo causam, quae tamdiu, adeo rebellis ad omnia, vel efficacia, salutis remedia, exacerbationem finiens nausea, & vomitu, nisi fixi quid praeferit viscoribus; quod recrudescens urget, donec acre virus vi expulerit, excusserit que regenerantis fomiti. Quum vero millum in abdomine visus crebrius tali tragoediae scenas aperit, quum ingens illa, & scirrhoidi malignitati suscipiendae nimis apta, glandula, suspicatus sim, forte & hic virus-bende quid haud ita dissimile sed ambiguum id Tibi redditi. judicanti, praesens quippe, imo & familiaris, et Medicus, liberrime cedo. Interim, si quid scio, dolorum diuturnitate ipsa intolerabilium in ventre, causae ad calculos, inflammationem, distentiones nervorum, aut erodens acre, referuntur ab Observatoribus, probante incisione cadaverum. Ex quibus virus exurens hic latere unice censetur, quod respondeat omnibus, quae recensentur in Historia malis. An malles mordacis veninis irritamenta causam tanti habere mali? Sit autem alterutrum, est tamen, ut in dubia causa certo uti possimus auxilio, quippe ad utramvis apposito. bibat, vacuo ventriculo, hora ante refectionem, drachmam de Oleo amygdalino recent pressoq; cum panicilli-lum de vitello ovi admistum, & aequa copia Syrupi de Altaea Fernelii. quadrante hora elapso post haec, deglutiat III de Catapotis A in priore consilio commendatis superfordens uncias III de decocto B ibidem commemorato. Saepe interim infundatur Clysterem ex unciis IV Olei Lini recentissime pressi, commisto simul Syrupo altaeae ad uncias binas. His fiat periculum, si debellari queat atrocia, adve indicias reduci. Vale diu felix.

Leydae 17/26 Jan. 30

Up to this time I have not been able to ascertain the cause of the condition which has been so long and so decidedly rebellious to all treatment. I have not been able as yet to find an efficacious remedy for the exacerbations of nausea, vomiting, and pain. Nor have I determined the underlying condition of the abdominal disturbance, which is so persistent, and which suggests at times a malignant scirrhoidal condition. This malignancy is periodic, and its origin is not easily determined. I would leave to your judgment whether the ætiology of the condition producing the exacerbations of pain, be disturbances in the stomach, calculus, inflammatory conditions, nervous disturbance, or rodent ulcer. Probably an autopsy, as in many cases reported at great length, will be required to determine the cause. Until the cause be determined, however, symptomatic treatment alone will be indicated. When the stomach is empty, the patient should take, before eating, a dram of recently-expressed oil of bitter almonds, made into an emulsion with egg yolk, plenty of water, and syrup althæa fernellii. A quarter of an hour thereafter he should take three scruples of catpotus A., and three ounces of decoction B. on the same indications. There should also be given frequently enemata of newly-pressed olive oil, four ounces, mixed with two ounces of syrup althæa. It is to be hoped that this will decrease the atrocity of the pains and reduce the discharge.

May you enjoy life.

Leyden, January 26, 1738.

Eight months subsequent to the date of this letter, the hand that guided the pen was at rest; but the events which give Theodore Tronchin a place in the history of medicine were not to be enacted for ten years. The name of Boerhaave is a familiar one, but the same cannot be said of Tronchin; and a few remarks concerning the events in the life of this physician are not out of place, and have a direct bearing upon his relationship with Boerhaave.

In 1748 Tronchin was still practicing in Amsterdam, and had attained a position of eminence, being at that time president of the College of Medicine in that city. He had become convinced of the value of the inoculation with small-pox virus as a prophylactic resource. Lady Montagu had introduced this practice into Europe from Constantinople in 1721, but the propriety of the measure was still under considerable dispute, and it was evidence of faith and courage when in 1748 Tronchin introduced the method into Holland by practicing the operation upon his own child. His success in this and subsequent cases rewarded him with an ever-increasing renown as an inoculator.

In 1753 he left Amsterdam, owing to the establishment of the Hereditary Stadtholderate, and located in Geneva, the city of his birth. In 1756 he became the director of the library in that city. His renown as an inoculator spread over Europe, and in 1756 he was called to Paris to inoculate the children of the Duke de Chartier, the operation being at that time a novelty at the capitol.

In 1757 his only work, *De Colica Pictonum*, appeared, and in 1762 he edited the *Opera Omnia* of G. Ballonius. The lancet of Tronchin, however, was mightier than his pen, and his permanent renown does not depend upon his writings, but upon his being an early and enthusiastic disciple of prophylactic inoculation.

In 1765 he visited Parma to inoculate the children of the Infant Philip, and the next year he was called to Paris by the Duke of Orleans to inoculate his children, and located in that city, becoming the first physician of princes. His influential friends and general renown soon secured him an extensive practice among the higher classes in Paris, and he was honored in many additioual ways, being elected to the chair of medicine and surgery, and created foreign associate of the leading medical bodies in Stockholm, Edinburg, London, and Berlin. His colleagues in Paris did not take kindly to Tronchin, who appeared to them as an usurper, and his methods of practice have been severely criticised. At these criticisms, however, we must glance; for, in considering the association of Tronchin and Boerhaave, a knowledge of the character of the therapeusis of the latter is interesting, because it shows to some extent the effect upon the student Tronchin of the peculiar views entertained by the teacher Boerhaave, who, as is well known, was a supporter of the mechanical sect of physicians who were constructing a system of medicine upon Harvey's discovery. Boerhaave described the body as "consisting of a conical-inflected canal, which divided into lesser ones of the same description, derived from the original trunk, and being ultimately collected into a retiform contexture, mutually opening into each other; he conceived them to send off the lymphatics and the veins, the former of which terminated in various cavities of the bodies, and the latter in the heart itself. These tubes or canals he admitted to be for the conveyance of the animal fluids, on whose free and perfect action health was dependent. Obstruction of these, in the mechanical theory of Boerhaave, was the cause of disease" (Pettigrew.) And to prevent and overcome such obstruction was the aim of the disciples of the mechanical sect of physicians. Pettigrew says that Boerhaave endeavored to explain the functions of the body in health, the phenomena of disease, their causes, symptoms, and even the action of drugs for their relief, according to the laws of statics and hydraulics, and also by the operations of chemistry, but that, fortunately, his practice was little in conformity with his views.

In considering the association of these two men, it is interesting to note the effect of the teachings of Boerhaave upon Tronchin. The latter appears to have lacked the ability of his master, to avoid on proper occasions making too close an application of theory, and it would have pleased me if this letter had contained a more extensive list of therapeutic measures recommended by Boerhaave to Tronchin; but we can find statements regarding Tronchin's practice which give some idea of the result of the application of the mechanical theory.

A. Chomel, writing in the early part of the present century (*Essai historique sur la Medicine en France*) has the following to say regarding Theodore Tronchin:

"Posterity will scarcely believe that there was seen at Paris a foreign physician, *fort a la mode et fort couru*, who rejected from his therapeutics bleeding, purging, injections, quinine, opium, hematics, milk, baths, mineral water, etc. All his practice consisted of recommending frictions, movements, exercises, long walks, the use of wine and of cold drinks. He believed that fever was necessary for the cure of disease. He excited this fever, stimulated and maintained it by hot and active remedies, cordials of

precious gums, of myrrh, aloes, balsam, powders, and other confused mixtures of ancient Arabic medicine. His cold temperament influenced him in all his conduct. He never believed himself sufficiently able to augment the course of the blood and humors, or to facilitate the crises while he patiently waited the recovery of the patient." (*Dictionaire de la Medicine*, *N. F. T. Eloy.*) Chomel says that Tronchin's method of practice was awful in acute disease, capable only of amusing those who simply imagined themselves ill, and that he was never observed to cure any but a few melancholiacs

THEODORE TRONCHIN.

and hysterical women. Nevertheless, it was in accordance with the teachings of the mechanical theory of Boerhaave, and illustrates the danger of theories and systems of hypotheses in the hands of teachers, especially such a teacher as Boerhaave.

Tronchin's work, *De Colica Pictonum*, was as severely criticised as his methods of practice, and there can be little doubt that he had many enemies among his colleagues in Paris. Nevertheless, his enthusiastic championing of the inoculation with small-pox virus aided in establishing the valuable practice in Europe.

Boerhaave's original destination was for the church, and he was a sincere and devout man. As Pettigrew remarks, he furnishes a strong example to oppose to the aspersion, *Religio Medici Opprobrium Medicorum*, or the still stronger calumny, *Ubi tres Medici duo Athei*. Consequently, it is with some apprehension that we read of Tronchin in Paris having been the intimate friend of Rousseau and Voltaire, fearing that he was led away from the religious influences of his old friend, Boerhaave. There is an incident, however, which shows conclusively that Voltaire, instead of drawing Tronchin from the teachings of Boerhaave, convinced him of their truth. Voltaire died on the 30th of May, 1778, and much has been written of his dying hours. The Marechal de Richelieu is said to have fled from the bedside, unable to endure the horror of the scene. The friends of Voltaire, on the other hand, assert that he approached his death without fear. Dr. Tronchin was with Voltaire much of the time during his last days, and his description is generally taken as authority. He says: "If the bond of my principles had needed to be strengthened, the man whom I have seen agonize and die under my eyes, would have made of them a Gordian knot; and in comparing the death of a good man, which is only the close of a beautiful day, with that of Voltaire, I could see clearly the difference there is between a beautiful day and a tempest." . . .

I care nothing for the death-bed scene of Voltaire, and do not admire Tronchin for having made it public, but I am glad to know that when Tronchin died, in 1781, he believed that beyond the grave he would once more be with Boerhaave, and I hope their friendship was renewed, and that somewhere to-night the spirits of these two physicians of long ago are in communion once more, and that they do not regret that I have brought to light this old evidence of their association on earth, nor that for a few moments we have associated with it a few memories of their friendship.

ORIGINAL ARTICLES.

RETROVERSION OF UTERUS—VENTRAL FIXATION OF.[1]

By W. L. Michael, M. D., of Sherman, Texas.

DISPLACEMENTS of the uterus do not, in themselves, constitute disease. Every one with experience has seen marked cases of retroversion with no symptoms of any disease whatever; at the same time, it cannot be denied that the changes in circulation resulting from displacement may cause alterations in nutrition, and may favor or preserve inflammations in or around the uterus. Prolapsus of the adnexa, which so frequently accompanies misplacements, is a fruitful source of a long train of reflex nervous symptoms. The adhesions which form as a result of inflammations, fix the uterus in its faulty position, and add to the

[1] Read before the North Texas Medical Society.

nervous troubles as well as perpetuating them. When no adhesions have formed, and the uterus can be readily replaced, the symptoms may often be relieved by replacing the uterus and holding it in position by a Hodge or other properly fitting pessary. That a cure could be effected in this way, however, is not to be expected.

Shortening of the round ligaments, Alexander's operation, I believe, is the better, and indicated where the uterus is readily replaced; but this, like other modes of treatment, is often followed by relapse, and even its author recommends that it be supplemented by a pessary for many months. But there is a very large class of cases where adhesions have formed and where it is unsafe or impossible to replace the uterus by manipulation. It is in these cases that ventral fixation is, it seems to me, the best operation. Objections made to the operation are its possible rate of mortality, the possibility of ventral hernia, fixation of the uterus in a false position, the induced immobility of the organ, the possibility of failure from the operation, and its effects upon future pregnancies. The possibility of ventral hernia is undoubtedly attendant upon every operation in which the peritoneal cavity is opened. This being the case, we are of the opinion that none of these objections are pertinent when the operation is done for retroposition with adhesions, or as an operation secondary to another—for instance, such as removal of both adnexa. Opening the abdomen and suturing the uterus to the abdominal walls, in itself causes no appreciable shock, is followed by no pain, and should not, in ordinary cases, have any mortality; where many adhesions exist, the shock will be in proportion to their extent. The operator certainly has every advantage in breaking them up, for he has the use of his eyes, and his fingers act directly upon the organs involved, and not blindly, as is the case when this is attempted through the rectum, vagina, or abdominal walls. The advantage of being able to examine the tubes and ovaries and to remove them, if found diseased, is not to be overlooked or underestimated. The union obtained from the operation is, no doubt, very tender, and, like other adhesions produced from serous surfaces, is very elastic and prone to stretch; but a very insignificant band of adhesion will suffice to retain the uterus in position when once it has been properly replaced. Nearly two years ago I performed two ovariotomies, both of which were complicated with retroversion. In one case ventral fixation was done, silk-worm-gut sutures being used; in the other only the ovaries and tubes were removed. I have had the opportunity of watching both of these cases, and the one in which ventral fixation was done has been better able to stand or walk and has made a much better recovery than the other one. Where fixation was done, the uterus is in perfect position, and the bladder trouble, with inability to walk with comfort, and the pains in the back she once complained of so much, and which grated on my ears for more than a year, have now ceased. In the other case, while the uterus is quite small, it is still retroverted, and she experiences relief and possibly some improvement by having the uterus replaced and wearing a pessary. In most cases of retroversion some endometritis exists, and a curettage should be done before the ventral fixation. I regret that my experience with pregnancies following this operation is very limited, and I hope this point may be brought out in the discussion. Care should be taken that the suture is not

passed too deeply through the uterus, as it might enter the uterine cavity, and thus become infected. Where a possibility of subsequent pregnancy exists, it is recommended to pass the suture well on the anterior part of the uterus, and not too near the fundus, as the principal growth of the uterus in pregnancy is in the body and not in the cervix. To recapitulate: I would say, while avoiding the extremes, that all female troubles come from displacements of the uterus. Even some obscure ones may do so, such as metrorrhagia, menorrhagia, amenorrhœa, cystitis, persistent pains in the back, and inability to walk. Where adhesions exist with retroversion, ventral fixation is the best operation. In all ovariotomies, where retroversion exists, fixation should be done at the same time. Where the uterus is large and heavy, catgut is not a good suture. Silk-worm-gut is less irritating than silk, and more easily disinfected than either silk or catgut, and makes the best suture.

CHRONIC LARYNGITIS WITH UNUSUAL ETIOLOGY.

By Fayette C. Ewing, M. D., of St. Louis.

Fellow of the British Rhinological, Laryngological and Otological Association; Laryngologist to the City Hospital, and Missouri Baptist Sanitarium; Surgeon-in-Chief to the Out-Door Department for Diseases of Throat, Nose and Ear; Aurist to M. E. Home, Etc.

THE following case is interesting, chiefly because of the unusual cause underlying the pathologic manifestations.

Mrs. S., aged about forty-five, a lady of high social position, consulted me January 23, 1897, for great hoarseness, after having been treated by several well-known physicians without benefit. Upon examination I found the vocal cords very red, and the adjacent laryngeal parts congested. There was a slight ellipse between the cords, upon phonation, showing that the thyro-arytenoid muscles (internal tensors of the cords) lacked tone. Close questioning shed no light upon the cause of the condition. The patient enjoyed perfect health, her general appearance denoted that; and her subjective sensations did not belie her robust physique. She was not dyspeptic, had no nasal catarrh or stenosis, was not a singer, and declared she did not use her voice to excess. I began treatment in the dark, I felt, making topical applications of nitrate of silver, eighty grains to the ounce. During a conversation I had with her about a week after she began treatment, she casually spoke of a child of hers whose hearing was so impaired from an attack of scarlet fever in infancy that its limited vocabulary ostracized it from companionship with its brothers and sisters. Seeing this, motherly sympathy influenced her to

make a companion of the boy, now about fifteen years old. Communication necessitated pitching the voice, and the continued strain had brought about the present inflammatory condition of larynx and cords, with hoarseness, as subsequent treatment demonstrated. I directed that a conversation tube be purchased for the boy, and ordered the patient to speak in a lower register. The nitrate of silver applications were continued, and the following inhalation from Underwood's universal inspirator taken daily:

℞ Ol. pini sylvestri ..... fl. ʒ iv
Ol. origani ..... fl. ʒ iss
Eucalyptol ..... fl. ʒ iij
Menthol crysts ..... gr. xl
Naphthalin ..... gr. xv
M. Dosis—iii. to x. drops.

This inspiration was continued daily for several weeks, then every other day for two months. The patient steadily improved and was discharged cured at the end of that time. She called at my office recently to place her daughter under my care for a catarrhal affection, and had had no return of the trouble. Though local applications were made to the larnyx, she is convinced that her recovery was due to the inspirator. There can be no doubt that rest of the voice is indispensable to the successful treatment of chronic laryngitis from vocal strain, but after the cause is removed these cases require medicinal application to reducethe inflammation and congestion already established. In such conditions the Underwood inspirator has served me most satisfactorily on many occasions.

North Missouri Medical Association.—The North Missouri Medical Association convened in Moberly, June 16th and 17th. The officers of the association are: Dr. Robert Haley, Brookfield, president; Dr. Brummel, Salisbury, first vice-president; Dr. Clapp, Moberly, second vice-president; Dr. Welch, Salisbury, treasurer; Dr. Lantz, Brookfield, recording secretary; Dr. Cuppiadge, Moberly, corresponding secretary. The papers discussed and under discussion were as follows: "Congential Umbilical Hernia," two cases, J. L. Cantwell, Bucklin; "Shoulder Presentation," J. C. Ridings, Cairo; "Puerperal Fever," Reginald Meade, Middle Grove; "Obscure Cases," J. H. P. Baker, Salisbury; "Pros and Cons of Advertising," W. C. Mangus, Moberly; "Report of Cases," Tinsley Brown, Hamilton; paper, J. W. Craig, Shelby; "Dreams That Come True," G. R. Highsmith, Carrollton; "Rectal Surgery," report of interesting cases, E. Van Note, Hamilton; paper, J. Block, St. Louis; "Disorders of Dentition," Dr. Dallas, Hunnewell; "Injuries of Iris," Robert Haley, Brookfield; "When Should Treatment End and Surgery Begin in Inflammation of Pelvis?" H. E. Pearce, Kansas City; paper, W. B. Dorsett, St. Louis; "Anæsthetics," C. J. Morrow, Kansas City; paper, F. Reder, St. Louis; "Some Phases of Intestinal Obstruction," A. H. Cordier, Kansas City; "Ventral Fixation," O. B. Campbell, St. Joseph; paper, W. A. Keener, Jamesport; "Hydrophobia," Dr. Bagby, Cairo; "Perforating Pistol Wound of Stomach, Recovery," Dr. Cuppiadge, Moberly.

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By Dr. Warren B. Outten, of Saint Louis.

[CONTINUED FROM THE JUNE ISSUE.]

CHAPTER V.

Well, Alack, Trouble Has Come to This Bombastesian Cohort, for They Must Study for the Purposes for Which They Have Been Made.——Posture and Study.——Yea, This Study of Degeneration is Ponderously and Vexatiously Great.——The Division in This Study of Degeneration.——Satan, the Universus, First and Dire Degenerate.——The Origin of Degeneration.——When Thou Seekest to Determine the Eternal Justice of Things, Thou Must be a God to Do This.——What is a Psychic Teras?——Questions From Deliquims Four.——The Story of King Quem.——What is the Difference Between a Fool and an Ass?——The Start and Course of Degeneracy.——As to Speculation.——Heredity is an Unfathomed Mystery.——A Still Further Description of Degeneracy, More Especially as to the Neurasthenic Degenerate.——Para Blar's Description of the Stigmata of Degeneracy.——Theo Celsus' Confusing Elements in the Study of Heredity.——The Excessive Emotionalism of the Degenerate.——This Subject Still Further Discussed.——A Few Words as to Egoism.——The Degree of Egoism Doth Mark the Degree of Degeneracy.——Tears and Laughter are the Constant Attributes of the Highest Culture and Brain.——Fancy and Delusion in the Make-up of a Degenerate.——How Fancy Wells into Hallucination.——The Quidnunc Bombast's Opinion of Degeneracy.——The Very Much Desired End to This Chapter.

WELL alack, it seemeth that trouble has come to this Bombastesian Cohort, for it hath been ordained that each and every one of its members must ply their most earnest endeavor in the study of degeneration. Hence it is so, go where thou wilst in this domicile, thou canst see the pictured phase of studentdom. Heavens, 'tis plain trouble marks the brow of some, whilst deep interest stamps its course on others. Yea, verily, the thought is of easy suggest how trouble must keep its own company. Thus 'tis again easy to agree with that gentle "Dame," when she said:

> Weep and you weep alone;
> For the sad old earth must borrow its mirth,
> But has troubles enough of its own.

'Tis truth as old as earth that misery loves company, and thus 'tis not strange that oft, and oft again, Tius Bu, Vegge Go, Blong Bom and Yong Us may be seen with books in hand and troubled faces discussing with each other, only to become more troubled. Nay, then, with them it seems just as the Spaniard says, "In trouble, to be troubled is to have your trouble doubled." Aye, by my faith, Spanish like, their double troubles mimic woe. Anon, to me the study of these men, in their mental plight, is unctious food for my mirth. Thus have I noticed the varied play of posture in these sorely belabored students, whose untrained minds strain and strain again, only to trip their progress. Thus, Vegge Go is lax; by

nature his muscles hang loose in a lax skin, and looser still they seemeth now, as hopeless ponder hath seized him. Yea, truly, he seems so lax as to but suggest that it would take little to make him run like melted butter and to resolve into shapeless expanse. Gods! he seemeth to wallop, and wallop, in intellectual trouble, and as he now sits he much resembles the crumpled outline of a wet rag. Now and then, as comprehension assails him, his form straightens up like spasm in a person with lock-jaw. Yea, indeed, he doth picture spasmodic chaos. Blong Bom, by nature erect and poseful, hath, for his mental task, become more so; he sits as erect and as rigid as a pole; exactitude seemeth to mark each posture. His book is held in one unfailing position, his arms just so high, and bent at elbows in exact angle. His legs are held as paralleled as mathematics could make them, bent at knee-joints into a perfect angle; and his spine looks so straight, from skull to buttox, as to ablate all of its natural curves. His head looks as though it had been glued to his erect spine with calculated and unerring exactitude. Nay, by my faith, it doth appear to me that every muscle in his body is put in tiresome tension. Aye, his voice, even, has the clang of tension; verily, it seemeth to me that Blong Bom's brain hath reached the limit of its power in its endeavor to hold its muscles in tiresome posture. Yea, 'tis thus I argue that men who pose rob their brain of much of its power in the very effort of posing; he that lolls and thinks, thinketh in the lines of power; but he that poses in fixed strain, must think in narrow, rigid lines, for freedom of the thought cometh not. Thus it was with Blong Bom: he thought so much of posture as to leave no thought for study. His memory was as rigid and thoughtless as it could well be; his calculations empty, mechanical, and void of sense. Yea, marvel did seize me when I compared Para Blar to Blong Bom. Thus in Para Blar, every muscle easily sought restful repose. Thus he sits with his back well supported. Yea, oftentimes his entire back curves not, angles mark his outline. His legs are elevated higher than his head, making gravity aid by the flow of blood to fill a wasting brain. His book lies on lap without effort of muscle to hold it. His right arm and hand eases the muscles of his neck by supporting his head; there is no thought of posture; the muscles are restful; comfortable concentration marks the outline of his form. Yea, truly, the brain here acts its single part in mental effort: trouble besieges it not to attend to muscular work, and the result in accomplishment is e'en more plain than the position assumed in study. Yong Us doth, indeed, present more of a picture brawn than of brain when he has his book in hand looking at its pages; you would, forsooth, come to the conclusion that Yong was on the verge of committing some heinous, hellish act. Yea, heavens! it was a wonder that the word upon its page did not take heels and run before a countenance so sinister. But, alack, the words seem to scare Yong more than Yong scares the words. Verily, he holdeth his book as he would a sledge hammer; and gazes at its pages in grimacing fury, and gets for his pains not a spark of intelligenee. Yea, 'twas thus he tried to study; and oft, yea, very oft, after some moments of trial, his book would drop as though it were a thing of lead, when he gave vent to a few "humphs," then a muddled sigh, then a wide-mouthed yawn did besiege him, and which seemeth to go down to the soles of his feet, then

he would look up and vacantly stare. Yea, this effort at study had stunned this brawny, stolid giant. Yea, 'tis true, a giant's body is oft ruled by a pigmy's brain. Now, then, Tius Bu, whilst not as lax as Vegge Go, is still lax enough, heaven knows; but Tius is a fitful student, as at times he seemeth to dwell unduly long o'er each page, and thou wouldst think he was plucking the very soul of expression from each wordful phrase; but, alas, on closer view, it does show that vacancy has stolen his eyes and brain. Yea, he is indeed a medlied reader, for at times he chuckles and chuckles, as though the veriest fun did run o'er its page; then he purrs in contentment, like a kitten; then hums, in almost glee. Truly, here neither muscle nor thought tires his brain. Yea, too, memory is not willingly responsive to his effort: all that Tius learneth cometh from what he hears, and not from what he hath studied. Donkey-like, his ears preponderate. Yea, Theo Celsus once said: "Tius Bu is but a reminiscence of the humdrum sort," and suggests that he commenced with "all life, and hath remained the same ever since he commenced. He overflows in what has been, and not what 'tis now; his activity is akin to the tomb—'tis of the past sort. Aye, a talking machine may purr in platitude and still be gilded in wonder. But men of the Tius Bu kind must utter sense, rare sense, ere it ever remaineth aching nonsense." Yea, 'tis true, that amidst this peck of troubles mine cometh as well. 'Tis useless to argue that my untrained mind was not made to bruntfully delve in such lore as seemeth to exist in this deep mental study of degeneration. Heavens! there is no excuse; I am ordered and must study along with the rest. Yea, 'tis a crazy decision, and in museful wonder I have viewed what this study doth contain. Verily, its breadth, to me, looketh ponderously, vexatiously great. Bah! Pish! Boo! Such work to me seemeth hair-brain work—yea, veritably a hair-splitting process—and may have virtue for philosophers and fools, but not for plain thinking men. Gods! in my thought do I but know that many of this Cohort would but make far better battering-rams than philosophers. Yea, full well I know that I am better fitted for many other things; still it remaineth true, at this coursing time, that a wise man must be a fool if he would bide in peace in folly's kingdom. Blessings be on the congenial soul of Theo Celsus, for when I did but ask what was degeneration —yea, the best means to acquire a knowledge of how to study it—he did pleasantly tell: "Mens," quoth he, "'tis an old saying, which man hath not nor can he better, that the mind is the man; for whatever of value there is in man must come from the real worth of his mind. Nay, then, thou canst and must see that the mind is the sole measure of all mortal worth. Verily, to me it doth seem that the mind is but the outward show of an inward immortal spark, coming from an unknown beyond. Yea, man, then, is but the matrix of this spark. I pray thee, what then? Yea, to me it doth hold good, that what's left of man, after thou hast taken from him his mind, would not have the virtue of dust, as his mass would encumber much-needed space and be utterly useless in this thriving, growing world. Yea, a gradured human form divine, when mindless, hath not the virtue of a dull, rigid statue, e'en though it may be outlined in rarest beauty, for 'tis but purposeless shape. Aye, when all of this is said, thou canst see that the study of man is, after all, but the study of mind, for true it is the world doth yet hold marvels of construction. Anon, my willing

friend, that comprehension may finally assail thee; let example, then, turn thy thought aright, for all the world is taught best through that which they already know. This mind of man can be truly and aptly likened to a musical instrument, whose chords sound in concord and harmony, for any discord from this tuneful thing but shows in disharmony. So, then, harmony and disharmony, concord and discords, must explain this soul's mental tune.

"Now, Mens, thus we start. All healthy minds flow in concord and harmony; when discords come, harmony vanishes and stressful trouble has thwarted harmonious tone. Thy crazy man, whether a degenerate or not, shows the discordant elements of his tuneful soul. Anon, my friend, degeneration, like its numbered letters, hath had at various times a dozen meanings; yet now withal, it must ever mean anything which is now or anything which grows worse than the kind from which it came. Yea, 'tis a vicious turn in growth from something better. Aye, verily, it is an old tale; for man in a time-worn past hath accused this man, or that man, this race, or that race, as being worse than their progenitors. Yea, it e'en doth seem that degeneration started long before this world began.

"Yea,'tis told, in history's most portentious page,
That an angel grand, and of intellect supreme,
Did from godful cause, in stubborn malignity engage
In vile conspiracy against our good God's reign.

God made this angel in his form divine,
But decreed that evil must be his to inaugurate;
Then was Satan vanished to hellish realms malign,
To become a universe's first and dire degenerate.

"Yea, God be thanked that thought is limitless. Aye, God be thanked that there can come in thought an honest and charitable excuse for the very devil himself, for this devil but acts his part as true as an angel. Verily, he but acts as he is made. Yea, Satan seemeth to be like all degenerates: a helpless martyr of a vicious growth. Nay, I pray thee, Mens, let thy charity go even beyond hades itself. Now, forsooth, follow me well. Here is a man whose father was of superior mould, but viceful habit hath left its sting, and this son hath become inferior to his father. Yea, this man's son is poorer in mind and meaner in body. Yea, verily, in every phase of his character he hath become vicious where his father was virtuous. He is degraded, and has not the redeeming traits of the father. Yea, strangely, too, not from any fault of this son, but deeply from viceful parental fault. This degenerate, then, is naught else than a product of a superior being blighted by vice, perchance by accident. Yea, vice may begin in mistake to end in woe. Verily, vice is born of passion, and passion the strongest creature of instinct. Nay, then, it would be utter nonsense to start this study of degeneration without real regard for system; for in the beginning thou must understand that when we speak of degeneration we refer mainly to mental troubles. Now, thou mayst have insanity without degeneration; in this case the function of the brain, that is, the mind, is affected. I pray thee, here note the difference, for at this stage of

our study a wrong start will wrench and turn awry comprehension. In the degenerate the brain itself is involved, and this in turn involves the mind, the brain's function. Yea, note still closer, the brain, the organ of the mind, hath e'en in the very germ been made wrong. Hence, every part of it wrong, both brain and mind. Nay, then, thy common every-day crazy man has his mind affected—his brain untouched. Yea, then, the degenerate is a product of vicious growth, not due to accident of a soul's progressed life, but germ-grown defects which involve the whole race from which a degenerate springs. I pray thee, Mens, let thought's strongest intent yet continue, for here cautious consider must rule thee. In degeneration we have four degrees of want of harmony or souls' discordances ever manifest. First, we may have persons whose minds are seemingly perfect in all things except that they lack balance; with this lacking balance, impulse takes contracted sway. Hence, in such persons lacking balance the mind becomes in its action effectively uncertain. Yea, presenting peculiar, aye, even original traits, they are often flighty, eccentric, and markedly erratic. Anon, the second division showeth where the brain is in a state of nevous exhaustion, called by the students of mind by that seemingly portentious name, 'neurasthenia.' Aye, thou needest not think that, forsooth, because these letters in this word are arranged in rigid soldier-like order they present combative front, for they but meaneth the weakest of mental things.

"Neurasthenia, then, is naught else than exhaustion of the nervous system. Yea, by some it is called irritable weakness of mind and nerves; and its main cause hath come from our ancestors. Yea, gracious heaven! to me it is ever unduly strange that neurasthenic minds are the abode of fitful, fanciful, yea, nonsensical worry. These minds are tyrannized over by fixed idea, whose force rules a soul's as a tyrant's will, and impulse leaps from their brain like lightning-stroke to snap mentality into direst confusion. Verily, impulse is oft goaded and ruled by instinct; hence, its brutality. Instinct seemeth to me to be but the animal unburnished by soul. Anon, at times these neurasthenics have not will at all, for 'tis too true that at times their minds may be so weak as to be unable to will a single act; 'tis thus that power leaves it. Yea, irritated by stinging thought, unrelieved and robbed of action. Again, we now cometh to a third disharmony of mind, and this third division brings in its train another word of large and rare proportions, called 'phrenasthenias,' which doth mean mind-weakness—a vice of degenerate organization. Yea,'tis called by some hereditary insanity; aye, the insanity of degenerated individuals. Yea, verily, thou hast in this crowd a dire and motley brood; this brood are, in frenzy, ruled by mistaken delusion, to their own ceaseless worry and fateful destruction. Yea, these lunatics are called reasoning lunatics; they are persistent in lucidity, logical in their reason, but ever abide by delusion. Thus we have persecutory cases who expose to the world their supposed wrongs; ambitious persecutors whom deluded frenzy misleads; litigious cranks, who appeal to law as naturally as they do to food; and jealous fiends, who oft imbrue their hands in human blood. Yea, this crowd of degenerate creatures, these creatures of pitiable mind-weakness, hath yet among their number more motlied members. Thus, amongst them thou findest the mystic; yea, these are persons of obscure thought;

they revel in the sublime, and claim to have direct intercourse with the divine spirit, and acquire a knowledge of God and of spiritual things unattainable by any man except themselves. These are the men who make religious systems and strive to spread them with insane tendency. Again, thou hast among them those miserable monsters of moral insanity; these individuals with apparent good reason and judgment. Yea, at times in an unconscious and paroxysmal manner delve into excesses and immoral acts. Yea, this is the kind of men that Regis says fundamentally, and although apparently less insane, they are more profoundly degenerate than the delusional cases, and they border a more marked degree of mental infirmity—imbecility. Nay, then, Mens, by thine eyes 'tis plain to me that thou hast not the bright sheen of interest within, but that my laggard thought hath come through this dull tirade of mind. Verily, youth hath found ere this that in the domain of study Morpheus dwells. Thank God that he does, for should forced attention carry its sway, youth, then, indeed, would lose its freshness and creep into dried up age. Well, then, here cometh the fourth division; yea, the last in the evolution of souls' decline, and doth show where degeneracy carries its own punishment and end, by begetting monsters whose bodies well in defects, whose minds have become *nil*. Thus, then, under the head of monstrosities from degeneration, we have the well-formed, vigorous, and healthy imbeciles, whose heads may be small or enormous, malformed, and lacking in symmetry; yea, their faces show the idiot; their appearance, animal; forehead, low and straight; illy-formed ears, which are badly placed; oft they are cross-eyed; they lisp, and dreul at the mouth, from their lower, protruding jaw. Heavens! their minds are illy-formed and teeming in defects as their bodies. Then followeth the varied phases of idiocy, from those paupers of mental worth to mental ablation. Yea, these degenerate creatures are minus intellect, minus moral sentiment, minus affection; yea, e'en a snake hath this to some extent, but this poor idiot none. Heavens! of all of the poor creatures to earth confined, none are poverty's jades more than some idiots, without a sign of intelligence; no semblance of sentiment; loss of feeling, yea, lacking in instinct; filled with disease; blind, deaf, dumb; deprived of taste and smell. Gods! in this clinging frame, moulded into human shape, held together by a flimsy flow of life, thou hast reached at last the poorest of all God's creatures, for it hath not the virtue of vigorous, vegetable life—'tis evoluted rot.

"What now, my friend Menthos? Yea, this study is difficult, as thy green mind doth view it, but study will make thee know it; then difficulty hath turned to ease. But, I pray thee, remember that far off, amidst the maze of difficulties, gleams more than the realms of bliss."

Thus, then, did I glean my first ken of this startling subject. Here, forsooth, I had viewed the o'erturned mind of man as a sad, unusual thing; for health seemed ever manifest in the narrowed circle of my life. Now, forsooth, as knowledge broadens, vast indeed became the lurid work of a mind diseased; for true it seemeth that increased knowledge in this portentous line increased my apprehension, and made this knowledge a burden. God grant me great knowledge in the beauties and perfection of life, and keep me ignorant of its sad, blemished, and soulful defects. Yea, here doth purl-gold touch thought when it was said, "Sorrow felt by a

man conscious of his own ignorance is like the joy of heaven." Verily, it is easy to learn, if thou hast patient wisdom to teach thee. 'Twas in my thought that, forsooth, this study did but come from hair-brain twaddlers, whom time and opportunity drove to overdiscussion of mazy speculation. Aye, e'en now my dull soul fails to see its deepest virtue; but, then, 'tis neither here nor there—'tis not mine to determine its worth or value, but to learn. Thus, pleasure became mine when I heard Para Blar and Theo Celsus discuss the supposed origin of degeneration. Thus said Para Blar:

"There is much to be said on the subject; but of one thing I am sure: that the world, according to all men at almost every period in the world's history, has been degenerating. Thus, as curate's clerk, I studied and conned my Latin, and became quite a scholar in that language. It has been the means of much comfort to my benighted mind. And in my study I have learned that, e'en in the days of old, degeneracy was studied; for we are told that men are naught but degenerate descendants of the gods. Thus, Virgil says:

> " 'Thus, all below—whether by Nature's curse
> Or Fate's decree—degenerate, still, to worse.'

"Again, Horace says:

> " 'Time, weakening time, corrupts not what
> Our fathers worse than theirs begot:
> A still lower race, ourselves. And we
> Hand down a worse posterity.'

"Thus, we can see that this cry of degeneracy is old; for one must think that there is powerful help in time and man. And I do not presume to judge the fateful end of this, our world. For, forsooth, I truly think that God himself will not give to man an iota as regards his godsome purpose."

"Aye," said Theo Celsus, "time doth, indeed, change many things. Man now is the ascending species. He came not from the gods, but from earth. Seneca must stand with Darwin, on the broad and fulsome plain of the generation of species. Thus, Seneca said: 'If there be but one thing in philosophy, it is this: that it takes no account of descent. All men, if you trace them back to their original source, sprang from the gods.'

"On this basis, the world and all men contained therein are degenerates from a godlike offspring. There is, indeed, many ages between Darwin's mollusks and Seneca's gods."

Nay, then, upon my soul, the deeper I but trudge in this subject, the more its mazy speculations all but confuse me. Gods! I am but ignorant in its every phase, and the little I know came from hearsay; and if this be true, charity ought to wield all human judgment. Thus said I to Theo Celsus: "From what thou hast said to me, it is surely true that all men are but things made for some unknown purpose. They *will* not themselves, but are ruled by this world's conditions, created by a great creator. I beg thy pardon; perchance this, my say, may be too crude for thy comprehension. Here let me strive to make it plainer. Thou

hast said to me that thy degenerate did beget his vices and sickled woes from his ancestors; that he had neither will nor choice in the matter. Nay, then, to me it seemeth, that while all healthy men have will, choice, and power, that the crooked germ of this degenerate doth make a crooked character throughout life.

"Heavens! thou canst not blame him. Yea, truly, thou canst only blame his ancestors and his life belongings for all of his wayward course. Nay, then, hard the soul that would blame man, when that man lives as true to his nature as the violet does." "Truly, thou art right, Mens," said he; "but when thou seekest to determine the eternal justice of things in thy ignorance, thou placest thyself upon a plane with man's creator. Thou must have this creator's knowledge ere thou canst determine the justice of man's treatment. For thou and I there is only left the hope that the purpose is as grandly good as the sad martyred ordeal of the degenerate. Yea, charity is the one and only thing that thou canst not surfeit a soul with. Yea, doubiy true, that soul which wells and o'erflows in charity doth wear life's rarest, highest, and most god-given virtue. 'Tis a feast of eternal love. Yea, charity is the sweetest and cleanest, most refining of all souls' libations; it casts a halo of glory and joy over all things; it hides the blackened elements of existence and blesses the glorious face of all nature, for, like the sun, it illumines and warms chilled space and leaves glorious memories in its course. Aye, Mens, let me warn thee, grumble little when this or that man pleaseth not thee. Remember that thou hast not made him and thou art not responsible. Hence, let not worry surge thy soul by critical judgment, for when thou hast corrected thy own manner, thou wilt find that there is not time for thee to correct and shape errant nature. Shape thyself well, and man will look different the older thou becomest." Truly, this was well said; forsooth, why need one worry about others actions, or about any man, so long as he hath not had a hand in the making? Still must I think that, after all, 'tis just as we are made, worry or not worry.

Anon, in my poor ways as a student, while wearily plodding, I innocently asked Theo Celsus what was the shortest definition that he could give of a degenerate. "Nay, in sober truth," said he, "perchance I can satisfy thee, for thus have I thought: a degenerate is more psychic teras than a sane being." "Psychic teras!" exclaimed I. "Nay, but I beg thy pardon. My ignorance is complete. Pray, then, what is a psychic teras?"

"Why thus do I argue?" said Theo Celsus. "The word 'monster' means anything strange. In this instance a 'monster' in medicine means any organized being having an extraordinary vice of conformation, a perversion of any part, or of certain parts only. Now, then, thy degenerate starts with a diseased germ, his brain and his body defective. Here, you have mental deviations as a consequence. So the word 'teras' means monster; hence the psychic or mental deviations makes him a 'psychic teras,' a mental monster, in comparison to a sane individual. Nay, it is true, 'monster,' in ordinary language, is a term used to convey an idea of that which is horrible, ugly, deformed or wicked. But, in medicine, a vice of organization, such as web-fingers, or supernumerary fingers, serves to distinguish a monster. So a mental deviation characterizes, in like manner, the mental monster." Thus, then, did I get a brief, if not satisfac-

tory, definition of a degenerate. Verily, to me it seemeth true that health is the great creator of humor; as the joy of living tickles existence and makes it overflow in zest, zeal, and humor. Truly, he that is touched with the humorous side of life hath not only zest and humor, but pleasure and comfort in its play. Thus Theo Celsus doth live the life of a conqueror; for neither pain, sadness, nor woe, seemeth ever to assail him with effect, as he ever conquers all somber things and tints them with guileless, refreshing humor. To him 'tis a constant pleasure to be stormed in questions terms, by Vegge Go and his companions, whom he calls *deliquiums* four, or the *quidnunc* cohort. Yea, whene'er chance did offer, they would assail Theo Celsus with numberless questions, which seemed to be only asked to be but forgotten. It chanced that as I was trying, at Theo Celsus' expense, to refresh my flagging mind, Vegge Go and the rest approached, deep concerned, and grave demeanor marked each and every one.

Then Blong Bom, stood erect and rigid, and with unsmiling face and concentrated gaze, did say: "Pardon me, most worthy Celsus, 'tis ordained by these, my friends, to humbly ask of thee thy understanding of deep fraught thoughts which have besieged us. Thus, then, is the degenerate made different from other men; hath he head, body and all? Nay, then, by what ear marks canst thou know him?" "Most worthy Bom, and sirs," said Theo Celsus, "the degenerate is seemingly as other men in many ways, yet remaineth a mass of contradictions, ruled by fancy, stormed by emotion, and deceived by delusion. Yet, like other men, can lie, gossip, and grumble. Yea, verily, he can assume virtue and practice vice. Aye, he can be as inconsistent as healthy man. He may be arrogant, assertive, wonderfully bright, extremely dull. He may use and abuse drink and drug, be intemperate in all things. He may be a libertine or impotent, a vagabond, a wanderer, or a recluse. He may be tormented by religious doubts; be emotion's freak, eccentricity's pet, imagination's dupe, timid, brave, superstitious, melancholic, overflow in excitement, or languish in torpor. But praised be heaven! that for his ear-marks, 'tis not oft that a fool can tell them." "Yea, then, he is but a man," said Vegge, "and, as thou hast said, a man ruled by fancy, emotion, and delusion." "Nay, then, upon my soul!" said Theo Celsus, "thy say is aptly put, for this, fancy emotion; and delusion doth, indeed, stamp a man as degenerate; they live in all men's minds, but they overflow in the degenerate, and hence make him." "Gods!" said Yong Us, " 'tis not in me to know of what thou speakest. If fancy, emotion, and delusion can make a man, pray what are they?" "Nay, then, Yong," said Theo Celsus, "the degenerate is described more by his mind's phases than by his bodily defects.

"Fancy is but a misleading scene,
An open-eyed dream,
A throb of morbid woe, a shadowy lie,
In soulful sheen.
Emotion, the fevered tremor of soul,
Impression's sting.
Delusion is but a deceived brain,
Truth's response to a lie's refrain.
Yea, all are but feeling sensation's glow;
They beam in joy, they throb in woe.

"I pray thee, my friends, now listen to the tale I tell thee; and if thou canst pluck from it its truthful strand, then thou wilst have the tale of degeneration. There once did bide, in a far-off land, a king called Quem; he had a rare big head, and a rare big brain, and he made the land; for which he ruled grow in happy prosperity. Assailed on every side by active, strongest foe, he, unmindful of his own ease and comfort, did combat this foe; and at last brought to his fair land, success in grandest show. Adored and loved by his fighting clan, worshiped and praised by this land's peaceful man, he became this nation's hero and God-sent king. Now, King Quem had ruled and fought for near two-score years; and during all this time no thought of marriage had ever seized him. When peace had come and vigorous growth began, all wise and good men besought their goodly king to marry; for what might come forth from his loins would have the virtue of his lineage, and his offspring might make greater still the land he had ruled and made. Yea, what was good for the land was good for King Quem, so unto himself a wife he took. Aye, in peace as in war, King Quem was a wonderful drinker. As time came a prince was born. Yea, 'twas said that he was a brilliant one. King Quem, as was natural, did die, and Prince Quem became King Quem the Second. Yea, 'tis said that the impetuous soul of King Quem the Second did keep the land in mental throes. Yea, he e'en was, at times, as brilliant as his father, but oft did his lack of balance make woe for his advisors; his rank impulse brought sorrow far more than friends. He was as uncertain as lightning-stroke, as neither thou nor I couldst tell where he would strike. Gods! he was as eccentric and phaseful as storm-tossed water, peculiar as a lunatic. Yea, he mimicked the extremes of life—now a genius, then a fool; 'twas ever a quivering doubt whether he was a benefit or a blight to the land o'er which he ruled.

"King Quem the Second did not live quite two-score years, but he left behind him an heir to his throne, called Neurasthenon. This king, forsooth, was a weakly king, whose mind and nerves were born unstrung. His mind was ever the abode of fanciful and fitful ideas; his head was a bony box of worry; his mind was tyrannized over by fixed ideas of the strangest and basest sort; impulse, not reason, seemed to be his forceful guide. Yea, he became a brute, almost unburnished by soul. Gods! 'tis true at times that a spark of genius came to only too soon to fall into inanity. He soon grew into a chattering, will-less man, unable to will a single thing; yea, he became a creature irritated by thought and most oft robbed of action; he unconscious did let impulse have its sway, and in blindest thought cut his throat and did end his degenerate life. Yea, Neurasthenon was early married, and in time he begot a son called Prince Phrenasthenon. This king in childhood seemed promising, but as man's estate was reached 'twas soon seen that frenzy, delusion, and delirium did rule him. Yea, he was filled with the frenzied reasoning of a lunatic; yet strong, lucid, and logical assertion carried out his deluded belief. Yea, he was a fitful ruler, whose imagination carried him into direst planes of thought: thus he now believed that the nation persecuted him, and in turn he berated and persecuted his nation. He in turn became an erratic fiend, then a crazy, jealous coward. He became the founder of a new religion, and in ecstatic frenzy preached its virtues. Yea, truly, had he not talked

with God, and received God's direct; he alone of all the world knew God's purpose; yea, his faith in his religion brooked no restraint; for when his reason and logic availed him not, he killed those who would not believe. Yea, 'twas soon he died, a moral blight, a sinning curse to his loyal land. Now, this king, Phrenasthenon, did sadly leave a prince called Monsstron. Heavens! 'twas soon seen that this thing was formed more like a brute than like a prince. Yea, neither vigor nor health were manifest in its clinging frame. It had a head of huge proportions, but had an idiot's brain; it had the appearance of an animal—forehead low and straight, flaring, ill-formed ears; its eyes were crossed and poorly placed; a sickening-looking, protruding lower jaw; a lolling, lisping tongue—this tongue lolled from a gaping, drueling mouth; it had a voice of thread. Yea, it grew, but daily grew into a jabbering idiot But soon it died to end King Quem's kingly line. Now, then, I pray thee, let us retrace our steps, and thou mayst know the steps in this ladder of degeneration. King Quem was a healthy man whom vice had weakened. King Quem married at an age too old for vigor, and what vigor was left was thinned by drinking vice. Nay, then, as God made it so, it was right. His progeny came into the world as King Quem the Second, assailed by viceful parental fault. While King Quem the Second was brilliant, lack of balance made impulse take the place of reason; hence, uncertainty and cruelty became the ruling part of his nature. Yea, he acted both genius and fool; and when this degenerate died his people sighed not, for his tensioned rule portended constant misfortune. Had King Quem married early in life, ere intemperance had stolen his vigor, the life of King Quem the Second might have been as great, if not greater, than King Quem the First. Nuerasthenon was a born degenerate, whose irritable brain and nerves were filled with irritable weakness, only to make reason less and impulse greater; for unconscious instinct turned his brain to brutish action—for love, sense, and reason fled at the deep approach of viceful growth. Phrenasthenon came into this world a deeper degenerate, his mind full of mental weakness. Yea, he started in life with the insanity of a degenerate individual honestly and truly inherited; 'tis true, that the ancient spark of genius loomed up again, only to play in frenzy's fury. Prince Monsstron is but the fated end of degeneration's evolution. The ponderous germ brought forth in King Quem's case started its fateful course from the blight of age and vice. This blight of vice assailed king after king, to make each a weaker thing, which did but final end in mindless idiocy. And now, sirs, if comprehension hath not turned into dire impotence, thou canst see how King Quem started his line of kings from a genius to end in a monster."

"Gods!" murmured Tius Bu, "I had ne'er thought that a degenerate was an ill-moulded king." "Yea," dryly said Theo Celsus, "Tius Bu, thy brain seems to be pricked by words, only to spew out nonsense. Yea, I can make a straight impression upon hard, brittle rocks, but thy brain twists comprehension into insane nonsense. Gods! it seemeth to me that adaman hath an easier core than thy sodden brain; yea, 'tis a diamond of fault and a gem of distortion." "I thank thee, Celsus, for such rare praise," said Tius Bu. "God bless thee, Tius, thy genius doth strangle obtundity to raise a monument to folly; thy idiocy only knows thy depth, for sense

is knocked into nothingness by thine sublime ignorance. Yea, thou wouldst gut the fecund goose and pose in magnificence as statued folly." "Verily," said Yong Us, "if this be praise, thy earnestness doth mean it; but, by my faith, I had but thought that Tius had far less sense than I." "Aye," said Blong Bom, "thou knowest but little when this theme is on." "Yea, God be praised!" said Vegge, "the greatest fool will not bide in folly's kingdom, as there he would but be commodity's thing; but he would bide where highest sense doth live, for then would he shine in resplendent blundering." "Yea, thy logic 's good," said Celsus; "but, anon, I would ask thee, Tius, what is the difference between an ass and a fool?" "Yea, 'tis easy," said Tius, "'tis double thought: one is as I to you, whilst the other is as you to me." "Yea," chuckled Vegge, "it is a tale of ears: thy fool is an earless ass, thy ass an earful fool." As this Cohort shambled off, Theo Celsus looked chagrined, and said: "Yea, sense ne'er did truly try to raise itself upon its own bootstraps. Gods! play not with a fool, unless thou art folly struck; for true it is, that a fool knoweth his own house, and a wise man doth not. Yea, thy fool's sense-box thrives best when empty; if thou fill it, folly doth end, and thou killest a fool. Aye, true it is, that ignorance is not only the mother of impudence, but the thriving author of the fool as well. Verily, Mens, I scarce did escape from being felled by the jaw of an ass." "Yea, truly sir," said I, "goaded asses oft do more than jaw." Thus wagged this fitful talk upon this crazy theme; but soon there came an order that this theme must discussion suffer, and that this was but the beginning, for every phase of its changeful scope must be touched. Verily, then, what followeth here doth aim to show how this Cohort did strive to pluck from this theme more than its soul.

THEODORUS—Verily, language showeth many things, but still more oft doth it show the soul than all else. Truly, the best of language is that language which all men best understand; and language thus becomes naught else than a soul's wordful image, and metaphor is a radiant outburst of this wordful image. Nay, then, he teaches best who teaches in the broadest understanding; for true it is, that when one man only knows, 'tis useless to all else; but when all men comprehend, then the perfection of comprehension hath come. I pray thee, what then? why 'tis thus I say, 'tis meet that all we say should be so said as to be understood: for in this study of the mind, the definite and indefinite are but blended. Yea, the study of the mind carries with it a study of this world and the world beyond. Hence, I pray thee, confine thyselves to earth, and go not into realms of which thou knowest not, and thus show thyselves to be blindly errant and vainly foolish. 'Twas well said by Weber, when he said that society is the grandmother of humanity. But, in very faith, must I think that society comes far nearer being the grandsire of degeneracy. True it is, that the varied influences of society doth teem in thousands of suggestive ways, which easily, by their never-ending, forceful wiles, carry the weak into ever-acting ways, devious, viceful, and hurtful. Verily, since man evolved, and in turn absorbed thought, the truthful utterance of some God-brightened genius waves, as the ether over a universe, to refresh, edify, and teach thoughtful man. Aye, indeed, grand is the mind, then, that could crystallize and evolve from his brain's wattled chambers such a thought as this, uttered by Emerson:

"Solitude is impracticable and society fatal." Surely, here doth bide in this thought the essenced cause of degeneracy. Thus, 'tis but natural thought, that to the strong all weakening elements are as nothing. Aye, truly, the wholesome well are but moulded into resistance, whilst the weak ever court assailants and distress. Yea, in this rare, rolling world of ours, society's force doth strongly touch and move every spaceful chamber of man's brain. Yea, is not society the wondrous instigator of thought and action, and thus by its dintful play expand the wondrous mental power of man. Aye, upon my soul, to me it seemeth that social contact is a giant of measureless strength and never-ending force, which bringeth from the brain of man all of his virtues; yea, sadly too, all of his vices. Anon, solitude truly locks the teeming variety of man into depths deep and dark. Surely, it were vain to think otherwise, that solitude is but akin to the nether side of life. Yea, 'tis more of death than life; and, hence, must court the silent, inactive elements of the tomb. Gracious, goodness! then thus must I think, that society is, perchance, more than grandsire to the degenerate, for it at least seemeth to have made the degenerate possible, and even now bides as his constant producer. Perchance, 'twere best to here pause; for full well I know that where to begin and where to stop in the solution of any problem marks the well-endowed and the well-balanced brain. In very truth, it seemeth to me that it can only be the lunatic, or the degenerate himself, who would unceasingly waste his time in striving to solve the impossible, improbable, and the utterly inexplicable.

TES AURE.—Sir, I beg thy pardon, but ere thou goest farther, grant me the chance to better my wayward thoughts, and mayhaps my groping words may be aidful to others. Forsooth, then, right or wrong, thus have I thought: man is moulded to his brain, and this brain is guide, controller, and governor of man. Anon, is it not true that every part outside of his brain is made efficient through whatever is of virtue in this brain. Man's brain is an organ, or instrument, if you will, of an acting present; whilst the mind, this brain's function, doth hold the working records and effects of many a past age. Such being true, this past cometh far beyond the limits of our ken. Nay, then, I pray thee patience, if I blindly err; for 'tis e'en true that the seeming force of my purpend doth easily goad me on. Heredity, that which descends from ancestry, doth hold within itself all past virtues and vices of that ancestral line. Heredity, then, is the speaking past; whilst the acting present doth but focus with this past, and makes up the function within the brain. The organ is modern; its function seems the embellished past. Gods! then, indeed, it doth appear to me that there is no new mind or soul; that this mind or soul, as at present existing, is but the ponderous accumulant of a past made manifest by a living present. Yea, thy formed, yet unborn babe of a present, is a thousand times older than a Methuselah.

Truly, heredity is, indeed, an unfathomed mystery; yea, 'tis the stamp which makes anything of good or evil within us. The living present is the incentive to action; but think as I may, it still doth ever occur, that the past is the infinite bulk of mind, whilst the present is but a moiety.

Verily, nature's course is fixed, and inevitably takes its lawful way.
Age is but an ever-changing period of life, where extremes have unceasing play.

'Tis an aged, oft-repeated tale, that the oldest man ever born on this sphere
Started as an infant child, and e'en as an infant child left it here.
Stranger still, 'tis said, and just as deeply true, that the youngest babe earth ever gave
Is, from the start, older than the most ancient man, as past time is in this babe arrayed.
Here on this earth extremes become rarest truth, as the oldest are changed in fine
To the newest, whilst the newest have stored from the start the extremes of age and time.

THEO CELSUS.—Aha! Aha! I tell thee, my friend—yea, my golden friend, Tes Aure—stick to earth, for earth holds thee still. Nay, I pray thee, don't make logic in rigid torture squirm. Aye, thy tirade is a maudlin threnody on time, and thou makest it as plain as muddy contradiction can make it. Nay, in the goodness of thy soul thou wilst not say me nay, but thus must I think of thy argument: 'tis havocked say. Thus to me doth it run: thou canst not tell something from nothing, without the intervention of everything; and now this everything is both something and nothing, whilst even so 'tis neither something nor nothing. Yea, we'll let hurry carry the theme; perchance, I can make it plainer; thus again: thou canst not tell cheese from kraut nor kraut from cheese, without the intervention of mouth; and this mouth is both cheese and kraut while it yet remains neither cheese nor kraut. Nay, is it not doubly true, that cheese is not kraut, nor kraut cheese, for the mouth alone makes them both a definite quantity when guttled. But truer still, dead the fool who can't tell the difference; yea, thy logic might fail to tell the difference, but a hungry child would, in a second's time, stun the most profound logic with the surety of its knowledge. Yea, thy philosophy is too much like nihility, as it deals with nothing. Aye, speculation is a windy, world-working tramp, which steals treasured time from good minds to make poverties result. Yea, speculation is a word-conjurer, and tints thought with gold-touched, winded rays, void of glowing fact. Yea, speculation only fattens speculation, and oft robs the speculator.

Some were sure that Didymus went to heaven,
Some were sure that Didymus went to h—l;
But wild speculation filled each allegation,
Doubt ruled the theme, since Didymus cannot tell.

TES AURE.—'Tis enough, thou crooked critic; yea, failure marks the critic's craft in all things. The best critics have at all times been the most successful failures. Truly, to me it seemeth that criticism is like unto the eye—the blindest thing on earth—as it nerveful feels, still cannot know, its own self; for, whilst it sees all things, seeth not itself—yea, wide-eyed to the world, sightless to self. Thy words may cut, still there is virtue in them; whilst they do not convince, yet they goad to endeavor. Unabashed, thus I say: heredity is cause unknown; its effect is plainest fact. Yea, verily, heredity is the cause of causes in the modeling of a man. Emerson doth in

rare compass and wisdom say: "Cause and effect means an end: seed and fruit cannot be severed; for the effect already blooms in the cause. The end pre-exists in the means: the fruit in the seed." Here, then, there lies no appeal from the decision of heredity. Nay, 'tis ponder with more than one man; for when it is said that man is endowed with a free intellect, still its freedom, if freedom it hath, appeareth to depend upon ancestral gifts, for inborn traits rule its application. Here, anon, within this fount, flows more wisdom. Thus, again, Emerson says: "How shall a man escape from his ancestors, or draw from his veins the black drop which he drew from his father or mother?" Here, then, is a stubborn fact; for, whilst we live and act in present time, ancestral effect upon our germful life to full-fledge man, our free control of mind yet remains in command and sway of heredity. Yea, invariably in man's conception, birth, growth, and end, 'tis shown that this end, indeed, doth pre-exist in the means that the fruit cometh from the seed. Nay, when 'tis said that the blest or the cursed is in the germ, it describeth truth; and truth here is naught else than heredity. All the varied influences of life are as naught in changing the stamp of heredity. Gracious heavens! wherein doth the pride of ancestry lie, when not for an instant of time doth progeny have will or power over cause or effect, means or end, seed or fruit? Verily, man is most deeply blest when heredity does not compel a thought.

THEODORUS.—Yea, thou hast said correctly: "Blind the fool and degenerate the germ which worries about final cause." Yea, truly, a mind acts as a mind is made. Content doth abide in that mind which accepts fact and lets intangible cause take care of itself. Nay, in my soul I do in honesty think that cause, final cause, is God's secret and a degenerate's worry. To the mentally well endowed, yea, healthy souls; all have within a teeming world of healthy and useful thought; hence, have not time to delve into tortuous mental maze. Pardon, then, for this my wayward say; for haste must court this our theme, and not laggard worry. Here on this threshold of our theme comes this query: What is the difference between heredity and degeneracy? We are told that in hereditary mental troubles there doth exist this difference: in an inherited predisposition to mental troubles there is no actual transmission of disease, but a predisposition is inherited. Now, it doth appear that in transmitted hereditary degeneration there is existing an actual defect in the very germ of the degenerate. Yea, sadly, too, 'tis true that there is a tendency towards progressive degeneration of this germ from the very birth of this germ to its full growth and development into man. Aye, here it endeth not; for there is a progressive degeneration of his progeny even to the third and fourth generation. These are congenital and genuine defects which involve the whole race of this degenerate, and show themselves not only in mental derangement, but in bodily defects as well. Thou needst not wonder when the varied influences doth seethe and waste healthy brain, how they wrack the diseased and the predisposed. Thus, where we have an inherited predisposition, insanity doth follow in the wake of the forceful influences of ponderous surroundings created in the life of the individual. Aye, civilization hath its full meed of blessings; but to the weak, the hereditarily predisposed, they but become almost as a sledge-hammer battering their impressible brains. Gods! civilization is a creator of a multitude of needs and wants

begetting habits of luxury which lower the standard of health, bringeth forth wearing, grinding, tense, and vain desires. Existence thus doth become a constant harassing struggle. Then there cometh in silent force the emotional influence of religion, the besetment of philosophy, ideas, which are from the changeful events of social and political life; anon, there occurs the murdering intensity of war; in short, a multitude of civilizing agents playing with man's feeling and passion in cyclonic way. Yea, then, this constant brainful friction thus soon reach limit's realms, and leave to the weak and predisposed, wrecked mental organs. Nay, then, why need we wonder, if insanity can come from the varied sources of civilization to the healthy mind, what, then, must be the influence upon the hereditarily predisposed? Degeneracy is a diseased or defective germ, which groweth as the man groweth; hence, it doth influence and affect generation after generation, until sterility doth end it. Morel saith "that the first generation embraces chiefly those persons who are of a nervous temperament, nerve exhaustion, or hysterical people." Nay, then, 'tis said that the people thus affected transmit in turn their weakened intellectual powers to creatures who have decided nerve exhaustion, filled with fixed impulsions—a diseased non-acting will.

Again, should these persons marry and have progeny, they in turn beget insanities, aye, imbeciles, whose weakness doth taint the intellect so much that blind instinct holds complete sway over their understanding. Forsooth, 'twould seem natural that here it doth end, but 'tis not so; for if this third class should have progeny, they would beget idiots—those sad monsters of lawful and blighting evolution. Here, then, cometh consolation: with the begetting of idiots the last link in the process of degeneration is made, since sterility steps in as kindly fate and prevents further propagation of the degenerate species. From Morrel we learn that degeneration is a morbid deviation from an original type. Aye, here comes the touch of fate to stay errant nature; for 'tis said that it matters not how slight this deviation may be, it can be transmitted and lead to incapacity of the mind, which in turn affects the mentality of his descendants. Degeneracy, then, hath an accumulating power which leads to its own end, yet it doth get in its course a raceful misery and fate.

THEO CELSUS.—Nay, by my faith, strange fancies mark all men's brains. While 'tis sweetly said by Shakespeare that fancy dies in the cradle where it lies, I believe it not, for all men hath e'en fancy when they die. Nay, true, the glory and beauty of this universe ever seem so natural as to ne'er beget surprise. Yea, 'twould be strange not to have beauty and symmetry in the rose, fragrance and sky-deep hues in the violet, the resplendent glory of a rising and setting sun. Yea, the moving marvels of growing life. This said, then here doth come my fancy. Wonder ever besieges me when I view man's shapely head; the smallness of its compass, immense accomplishments of its contents, ever fill me with vague and confused wonder. Yea, be it a grinning skull or a head garnished in beauty's vestments, it ever fills me with the same awesome wonder. Truly, then, is not the brain of a lunatic brilliant in its erratic play? Yea, this brain of man remains the brilliant germ of creation; true, it grows in its brightest flashes and most noble vigor when in health; still, it e'en flashes, diamond like, in dire disease. Verily, this brain is the most responsive thing in life—the

weight of an atom can stir its twisted depths. Hence, as ever seen whilst life bides, the most receptive and responsive of all organs. Yea, then, if any part of this brain revives and responds, how canst thou expect to have sound, correct, straight sense from a degenerate's crooked brain? Aye, in candor, must I think that all is not proved as regard degeneration. Yea, 'tis true that thought adds to thought, and surmise is but a fosterling of fancy more than thought. Man's investigation oft leads to wild surmise, and thus it is that a question of moment oft becomes festooned with glowing surmise only to hide deep, placid fact. Yea, to me it seemeth that much which is said about degeneration lacks truthful fact, for we too oft put a world of force on fanciful assertion. Yea, the novelty of assertion hath led more than one honest man to wrong. Truly, I trust not to worry this Cohort, but I for one must think that this woe-dealing trouble man callest degeneration is as much a disease of locality as it is a deeply germ-wrought trouble. Yea, are we not taught that degeneracy is for the most part a propagated vice, which hath its origin more from an acquired vice than from constant accident. For, verily, it remains a fact that there lies not in human the power to gauge the limits of viceful construction as a degenerator, nor the limits of environment. Nay, e'en its most portentous prophets oft utter thoughts of uncertainty; yea, does not Lombroso say that "degenerates thrive in great cities, worn out with civilization"? Heavens! is there one here whom hath thought thus, or that civilization could wear out any thing. Yea, it has ever been my thought, worn-out virtue was but another name for vice. Still, to me it holdeth true that the stimulants of a degenerate community early create degenerates; but then, still it appeareth to me that manifest degenerates, when withdrawn from those suggestive surroundings, might bide unknown as such. Yea, the surroundings of degenerate communities must ever affect the early susceptible and receptive brain.

THEODORUS.—Yea, in candor, thy thought seemeth well trained, and, perchance, thou hast said correctly. But, I pray thee, it is but common sense to first place the standard of authority before this Cohort ere we proceed to receive or combat it. Thus, with this said, I will proceed. Degeneration, as stated, has, from its very start, the elements of its own limitation; for continued viceful propagation courts end. But, anon, the degenerate presents certain defects, called "stigmata," which is but another name for brands, or, more plainly, indicating the presence of elements of both physical and mental decay. And thus it is that a diseased germ begets, under the dire influence of our present life, continuous transmission of increasing morbid deviation from the original stronger type. These are made manifest in an alteration of intelligence, plainly the concomitant of a defect of and in itself; that is, the entire intelligence of the individual is involved in the degenerate process. Yea, from all accepted authority, the brain can be affected only at the time of its growth and development; or, having obtained its complete development, it may undergo, through regressive evolution, a process of decay. A degenerate, then, possesses defects, faults, blemishes, or imperfections of the mind's organization; that is, they are deviates from a common form or special type—imperfect, or even badly formed, in intelligence, which Regis compares even to the deformation or malformation of the physical body.

The deviations from the original type, the defective formation of mind and body, are infinitely varied, and do not appear susceptible to strict and definite classification, nor even to a just and comprehensive division. There is no plain line of demarcation between the healthy and the degenerate; hence, these are determined according to the gravity of the impairment of their intellectual capacity. But a lack of tone and balance, and morbid instability, mark the degenerate's mentality. From authority we understand that many degenerates are, so to speak, on the "borderland;" for among them we may find individuals intelligent and, sometimes, even remarkably and brilliantly endowed mentally; yet a lack of harmony, sooner or later, reveals its presence by defects of mentality, showing that there is wanting a normal poise between the various intellectual faculties. This is particularly the case with those described by writers upon this subject, under the heading of the "ill-balanced, original, and eccentric." Now, while these deviations may not, in the very beginning, indicate actual mental disease, yet they are evidence of anomalies of structure—the very foundation of constitutional mental trouble. Yea, 'tis a common assertion among all who have investigated, that the chief characteristic of the degenerate mind is shown in a lack of balance and tone, a singularity of action, originality of mental product, and eccentricity of soul's motive. Again, in another form of degeneracy—in neurasthenia, or in a weak, enfeebled, nerve-exhausted brain—there exists a plain involvement or disease of the will.

Now, let us take our subject slowly; for haste here would bring but confusion. Thus far we have done well. The healthy mind can act upon and dispose of a multitude of ideas. Its will accepts or rejects such ideas as it may deem best. But this is not the case with the degenerate, whose brain is under nervous exhaustion. For, thus, if an idea, or group of ideas, should make itself manifest to this brain, it is likely to operate as morbid suggestion; and it generally presents itself in the form of a query, or as occasion for philosophical distrust or fear. Thus, then, there is demanded, upon the part of his mind, an effort to painfully chase them away, or else to resolve them. The degenerate's will being diseased, this effort to chase away such ideas or resolve them occasions undue anxiety; for he strives in vain to banish these ideas, since his will is utterly unequal to such task; and, as he is a feeling creature, becomes thus a victim of constant irritation and worry from a fixed, morbid idea, although this is rarely accompanied by any irresistible tendency to violence. Such persons are called by some "ideative neurasthenics," a term strictly applicable to those affected by fixed ideas; that is, ideas that either tyrannize or coerce the understanding.

Anon, we have a second form of neurasthenias, where, while the mind is wholly absorbed in some dominant idea, a suggestion is carried to the will. Now, it does not remain in the brain as an idea; but an impulse arises, an unconscious muscular movement results, making itself manifest by, perhaps, repetition of a word, a by-play, or a foolish or unwarrantable act. Here we have, plainly, a contention between the suggestion or advice of the idea and the will, resulting in impulse, which, in turn, in consequence of this vexatious tendency, causes an anxious revolt of the will; for the mind is conscious of its impulse, yet seems utterly powerless to

control it. Again, in the neurasthenic degenerate the will may become so enfeebled as to be incompetent to act efficiently; hence, the distress of such individual does not arise from his being morbidly and impulsively urged to act, but from an absolute torture and racked feeling—from utter inability to act at all. Thus, then, the degenerate, nerve-exhausted mind acts in one of three ways—through the irritation of fixed ideas, through the strife of will resulting in impulse, or through paresis or even paralysis of will. These are called "aboulias," from *a* (*alpha primitivium*), expressing want or absence, and *bouly* (will determination).

PARA BLAR.—Yea, in very truth, it may be that nothing is difficult to the willing mind; but there is, indeed, much that is difficult to the untrained. Certain it is, I feel my mind needs nurture and training, under the consideration of this theme. Thus, have I studied and found out that the definition of degeneracy, as given by Morrel, is that "degeneracy is a morbid deviation from an original type." If strictly interpreted, would practically include all mankind; for, in very truth, I doubt whether a man has ever been born, but who has not inherited some slight morbid aberration, both mental and physical, from his ancestors. Nay, then, who can show the dividing line between health and disease; between sanity and insanity; between the healthy and the degenerate mind? In terse, I do not believe that the perfect germ, or the perfect man, has ever existed. Positive elements always manifest their presence. Nay, doubt it not, the well-marked degenerate needs no scrutiny; for he betrays indisputably the degree of the degeneracy. Then, 'tis a wondered theme, and seems but to emphasize an opportunity of rare value—not only to the student of mind, but to mankind at large. Thus the stigmata, or marks, of the degenerate's mind, as I understand, is more or less lacking in judgment, that power of the mind which enables a man to compare the virtue of ideas, to find out the relation of things, in order to ascertain the truth; to scrutinize facts and arguments; to ascertain propriety and justice. In short, judgment is the faculty of comparison, and deducting wisely and skillfully. As Locke says: "Judging is balancing an account, and determining on which side the odds lie." Yea, indeed, this is well expressed; but, even with a healthy mind, this is irregularly done. Magnam says: "Doubtless, the essential thing is the discord, the want of balance, of the mind, which truly characterizes the degenerate." Aye, 'tis here that impossibility towers into disease. If the degenerate's mind has no balance, how can he be expected to balance the account, and thus determine the virtue of an idea, or judge wisely, truly, and skillfully? A mind without balance, is a mind without effective discrimination. Again, we find that the degenerate is lacking in moral sense and wrong. And still sadder does it seem, that he has not that nice discrimination which alone can enable him to discern the difference between virtue and vice so necessary for his earthly happiness.

Anon, a well-ordered mind is a mind of industry and continuity; for mental industry and continuity is the soul's wealth. But in the degenerate, while there may, indeed, be a kind of industry, well-ordered continuity never abides therewith; for, capriciously, he jumps from one thing to another; and from this lack of continuity of purpose, there ever comes a lack of mental accomplishment. Nay, at times it becomes but a feeble and aborted thing.

The power of attention in a healthy mind lends effect to purpose, purveys to thought, memory, and reason, and will. It is the germ of the best intellectuality. The lack of attention, on the contrary, leaves such a mind as vacant, wandering, and inefficient as it began. The degenerate is void of close attention; and such attention as is his, is as uncertain as his continuity. Aye, worse than all, there appears in the degenerate a mental element that eternally begets woe; for his will is a diseased and defective thing, which rules his mind by blind, unheeding impulse, or proves powerless, whence purpose bears not accomplishment.

Thus far, indeed, the picture of the degenerate presents cumbered ills; and yet, withal he may have a strong imagination and a discursive invention; possess real artistic aptitude, and o'erflow with rare fountains of expression. In the degenerate mind, indeed, mental luxuries become viceful, and mental necessities inefficient. Yea, 'tis evident that the degenerate mind hath lost its tone and become an organ without balance.

Thus far we have surely pictured ills enough; yet here, anon, comes trooping more.

Now, along with this crooked mind the degenerate bears within him crooked elements of body; indeed, the rank variation and malformation of his mind is oft borne in a rankly varied and malformed body. Thus, he may be a degenerate dwarf or a giant, or possess many elements of feminine character. His spine and chest may be deformed, his limbs paralyzed or contorted—they may grow excessively or waste away, as a whole or partially; he may be web-fingered, or have one or more extra fingers on each hand; he may have club-feet, or be flat-footed, and have what Regis calls "a so-called idiot hand, long and slender, with defective development of the thumb." His skull may well in defects, be crooked in outline, and its cavity may assume shapes and sizes, with partial or general asymmetry; it may be excessively thick or excessively thin, with suspicious points upon its surface. His face may be one-sided, and his palate badly formed; he may have a hare-lip, or his nose may be one-sided, with excessive cheek-bones, facial prominence, and even protruding jaws. The covering of his brain may be diseased, and show in various ways malformation from morbid processes. He may be blind, short-sighted, or have all the other aberrations of vision along with the ocular diseases and deformities of various kinds. His ears often bear the most striking marks or brands of degeneracy. He may have one-sided or even total deafness, and aural inflammations of every kind. His ears may be badly implanted, enormous in size, or possible mere rudiments, have various abnormal shapes, flat, fleshy, pointed, withered, lying close against the skull, or defective in every element of their structure. His mouth and teeth may show degeneracy—hare-lip, divided palate, or enlarged tongue. His first teeth may persist for too long a time; his second be double or partially absent, and there may be irregular third dentition. His teeth may be unusually small, or excessively large, or even grow in the wrong direction. His skin may be subject to pigment disease. He may have no hair, or, on the contrary, like the dog-man, an abundance, and that abundance be where it is least tolerable. Degenerate women may have whiskers and mustaches.

The voice of the degenerate may have many defects. That voice of

his infancy may persist through manhood. Mutism may be present, or all the various vices of pronunciation—stammering; repetition, or convulsive suspension of certain syllables; stuttering; thickness of speech, and so on. Here, certainly deformity holds sway; and Shakespeare blesses us again with his wisdom, for saith he:

> "In nature there is no blemish but the mind;
> None can be deformed but the unkind."

THEO CELSUS.—Nay, nay; unfettered be my thoughts. Ignorance, perchance, in many may be voluntary misfortune; but, gracious heavens! there throbs in the deep, silent bosom of nature a fateful, repressive influence only known to man's creator. Nay, 'tis God's truth that ignorance, after all, doth mark all human kind. Compare, if thou wilst, the wisest man who ever graced the face of earth—compare, I say, what he knows to what he does not know, and his wondrous intelligence dwindles into impossible comparison; for finality eternally blocks the feeble limits of his knowledge. Aye, by my faith, ignorance is near to being the worthful fate of man more than all else combined. Yea, reasons, conclusions, doth show that all men of earth are ignorant; and degree but indicates this ignorance's depth. Verily, thy tongue-lolling idiot is as wise, as far as his wisdom goes, as thy sky-climbing genius. In each 'tis the glintful play of living, brainy atoms; yea, and conditions makes them glow in dire dimness or in glory's heightened halo. Yea, truly, to me it gleams as a just conclusion, that both thy idiot and thy genius are hedged in by Godful cause; yea, to me, seeming accident doth gauge their breadthful sphere. Gods! 'tis plain that cause, accident, and their progeny, worry, doth devour living man. Nay, then, let it be essenced truth that the word "accident" is not found in divine vocabulary, it yet remains to the benighted brain of man that he is, after all, accident's whippet. Yea, accident may be the divinity of cause; but man's suffering, pain, and ignorance doth make it to him a punishing fate. Cause knows why I am as I am, but I ken it not. To me my present state seemeth accident. Aye, in all of my course, amidst its changing vicissitudes, accident doth seem to trace its living ways. Nay, nay, then! Heavens! I may be wrong; but by my troth it seemeth to me that I have ever been riddled by accident, and what's left remaineth to be more riddled.

That I was born, that I have lived, that I am as I am, to my poor mind, bears the stamp of accident. Sirs, patience; comfort is mine; it may be that worry is thine; but, I pray thee, let me patter words in soothing vanity on this strange and expanding theme. Now, I pray thee, listen to my vagary, for, since what I have heard, thus must I think: I, forsooth, am Theo Celsus, and, as far as my poor knowledge knoweth, the only one who hath borne this name. I, Theo Celsus, got my traits, yea, my belongings, as thou hast said, from my ancestors. Nay, am I not told that my form, my brain, my every organ which wells in function, did thrive in some worn-out ancestor? Yea, my virtues, my vices, lived before I was born. Now, then, if this be true, am I not a creature of false pretense? whilst I bear my name, I act my ancestors' way. Hold thee hard! what, then, this query comes: how much of me is me, or how

much of me was them? Gods! if reason aims to be just, all virtues, vices, traits, came from a past. Then, the only thing which I can claim as justly mine, beyond any quivering doubt, is life, as I live, and my name. Nay, then, upon my soul, I do but falsely say, for if all my belongings are ancestral, my name, then, is my sole possession. Verily, I am e'en then as a sausage, stuffed with what has been to assume a shape, or, like echo, a repetition of a repeated thing. Yea, at best am I a living shadow of the past, a well-made machine to make manifest ancestral gifts. Truly, here nihility looses itself in infinity. Nay, then, what is thy degenerate? A martyred innocent repeating the lifeful vice of a dead old rascal. Yea, he is a germ, fated from the beginning, without power to correct his errored make-up, or possibility to relieve himself of his blighting curse. Yea, at the very portal of life of a degenerate begins an unequal contest, as his living presence is the warped echo of vice. Nay, then, I say, yea, say it in the broadest charity, who dares, and still claiming to be a just man, condemn these degenerate creatures! for they but echo the willful acts of the past. Yea, thy degenerate is the saddest martyr in all development; robbed in the beginning of mental balance and worth, with his growth comes greater inefficiency, incompetent to judge truly, wisely or skillfully, but must judge the viceful way of some rotted ancestor. Gods! how poor is this degenerate creature, deprived of mental continuity of purpose; cursed with the lacking, or ruined attention, and, worse than all, ruled by will, whose acts are as blindly venomous as vice itself! Yea, heaven's charity must come here, as this degenerate has lost the virtued pith of his brain to become as phaseful and fitful as storm-tossed powder. Nay, then, thou needst not strain at language to let its tensioned self snap into vexed force, but the plain, trite-told tale doth make a racking tragedy. Here in this degenerate, his woe has piled into horrors, subject to every form of passion; hath not power to tell right from wrong; his inferior feelings or instincts o'ertowers and smothers the last vestige of virtue. Sad, sad indeed, when it hath come in man the inability to tell truth from lie, or vice from virtue; for then, indeed, doth the blind force of a strong acting degenerate will viciously impell itself, like a venomous serpent at the stimulant of a touch, to wound friend as well as foe. Yea, 'tis said that evils falling on the healthy are, by good sense and judgment, oft turned into blessings; but not so with the degenerate, for the sting of inheritance has made this mind into rigid vice. Yea, hopeless as death-touched nature is education here, as the vice of construction forestalls all healthy growth. Alas, and yea, woe this degenerate's start as a wrecked germ. His germ is like unto the nursery strain of Humpty Dumpty in his great fall—'tis a fated and potential wreck: its evil, irremedable for hope or bettering, was crushed at conception, and growth but emphasizes it. Yea, to the healthy whatever is, is right; to the degenerate whatever is, is wrong, and hath not right in it. Yet, amidst our worried wonder, the gracious soul of benefit looms into view, for the degenerate's mental vices are but made to destroy a propagated vice. This, for the degenerate, is woe; but for the great mass of humanity it but becomes a divinely beneficial ordination. Yea, here cometh the glory of justice, the essenced virtue of God's sustained nature. Evil carries with it its own inevitable end; but the limit of good, God hath not told, not heaven touched.

HEINE LANIUS.—Aye, marry, 'tis well; yea, 'tis pleasing, Celsus; for thy soothing patter of words bubbles and dances in the heat of thy vanity. Truly, 'tis more than sausages which are stuffed with "has-beens." But, then, 'tis said what has been, may be; still, comparison is oft a wiley, hypocritical diplomat, who makes man either happy or wicked. Nay, then, had I my say, 'twould be that comparison is more like a sausage than thou art, as it at times is shaped by a cover of odorous association and filled with doubtful, chopped-up assertion. Yea, again, assertion is an inflated, winded thing, which, like its first three letters, is made to bray, and not to purl in wisdom. Well, alack! my worthy friends, let consider halt me, for triviality hath tripped me; for better say must lead me to sense. The degenerate's make-up appeareth to mainly consist of a weakened intellect, enforced and rendered uncert in exaggerated sensibility. Yea, this sensibility is not acquired, but born with the degenerate. Sensibility is but acuteness of sensation, the quick response to pleasure or pain, rendered intense through inherited weak condition; hence, its acuteness doth mark its uncertain action. Anon, here interest swells. This weakened intellect, backed by an acuteness of sensation, is further waywardly led by its twin attendants—fancy and delusion, both of which are a brain's mirages. Heavens! there need not wonder come that such individuals are more susceptible to mental tension than to mental tone; hence, they are more misery's own more than pleasure's pets. Emotions in the healthy ever tend to pleasure, benefit, protection, and profit; but, alas! the emotional nature of the degenerate makes him a creature of strong animal impulse, thus to become the responsive subject of mood and morbid emotion. Trivialities in the degenerate are ponderous forces; in the healthy, they are motes, to be shaken off. What would create in the healthy serious yet easily managed thought, would plunge the degenerate into wailing woe; for he was born a dupe and victim to his weakened intellect, which lets fancy and delusion rule his mind. Nay, then, again, thou needst not wonder that he passes from tears to laughter, nor from laughter to tears, as readily as an hysterical woman or a scheming child. Trifles are powers to him; trifles stir his emotion; trifles betray the weakness of his soul; yea, trifles are his rulers. Aye, a watery atom acts as powerful upon the degenerate as would a storm upon the healthy, for the degenerate's magnifying emotionalism unceasingly transforms little things to great. Yea, 'tis said that, in the healthy, trifles can make perfection; but the degenerate finds them wearing irritation and trouble. Yea, doubt it not, emotionalism doth oft prove a power in politicians and women; but it becomes a weakening, mysterious truth to the degenerate. Anon, it has been said that nothing is useless to a man of good sense, for vigilance and proper judgment lead to sensible and useful purpose; but, in the degenerate, his mind is but an agent which is inherently bent in transforming the useful into the useless. Shopenhauer says: "A man must be well off who is irritated by trifles, for in misfortune trifles are not felt." Here, indeed, we have the echoed voice of degeneracy. And, upon this basis, a degenerate ought to be the most fortunate and happy of men; for he is touched by the slightest impression, the most insignificant thing. Yea, forsooth, it is strange that the degenerate's peculiar glory consists in praising his own emotional infirmity, while the great world is abused by him for its obtund-

ity and lacking emotion. His tremulous sensitiveness seems easily to turn to egoism. Yea, he prates in flowered and welling metaphor of his very weakness. He calls his emotionalism the wild-flowered wreath of feeling, the soul's sunbeam, the soul's foliage, tremulous to the breath of a suggestion. He purls in languor and wells in mystic dulcitude. He cries without reason, for his soul is touched with equal celerity by the animate and inanimate. His emotions appear to be gauged purely by his existing physical condition. A touch of dyspepsia makes it throb and flow. A torpid liver hues it in tints of green. His tears are the outward bleeding of an inward morbidity, not due to a feeling of misery, but to his intrinsic infirmity. He cries, sins, and repents as easily as he breathes; for his tears, sins, and repentance are governed, not by reason, but by morbid emotionalism. He is justly neither saint, sinner, nor criminal, but merely an emotional prank, a morbid vagary.

TES AURE.—Nay, by my soul! thou hast, indeed, made a quaking—aye, by my faith! an emotional picture; yea, it must be true, for thus it is all things have within them self-made destruction. Yea, a vice-touched seed of mortal life but teems with mortal woe; the fated germ doth not beget one solitary worm, but clusters. Here, doth deep consider sun-paint hidden tracks. Gods! emotion in man ne'er makes a fool; 'tis too close to the sap of life; fools have healthy emotion—they but come from a contracted germ. Yea, emotion starts from the very pith of soul; 'tis close kin to tragedy; intense seriousness marks its course. Gods! what a quivering maze must be the brain of a degenerate! Aye, doubt it not, his brain is the abode of many brilliant things; but in their heated, blooded, and tremulous domain they are warmed, by diseased contact, into virulent effect. Nay, is it not true, through all nature, that havoc follows the loss of balance? Then, indeed, doth havoc bide in a degenerate's brain; his loss of balance doth cause, from the mere stimulus of mental effort, a sort of intoxicated product. Aye, sad as the picture is, yet sadder still it remains to be when this lack of balance robs a mind of its most lofty and ennobling sentiments thus to dwindle into nothingness. Nay, in my conceit, what a ruined mind it must be, as 'tis in a degenerate, when robbed of that healthy, God-given, and God-ennobling function—affection! Yea, to me it doth seem that with affection gone, base passion rules. Yea, 'tis shown that such a mind revels in unfeeling, low, base, and cruel passion; for in verity, it hath not controlling agent. Yea, such a mind must have been that vice-cursed germ of Nero. Affection nor balance ruled; emotions played with him like wind with dry, drifting sand. Yea, balance gone, a storm-sieged, emotional brain makes nature weep; for its lack of affection turns man into brutishness. Harmony of a brain is lost, and it teems in one-sided action; for this diseased brain creates discord, as neither virtue nor forbearance correct this discord.

PARA BLAR.—Yea, I thank thee, Tes Aure, for thou hast shown that this theme hath strange elements within, and hast truly said that deep consider doth sun-paint its hidden tracks. Nay, then, as I understand, the degenerate's emotions are void of cool calculations, to his brain they ruin effective purpose. This lack of calculation begets an unruly, disorderly mind, which early leads to a tumult of judgment; yea, of consciousness and intelligence. To me 'twere strange for emotion not to lead

to passion, as emotion seems to be the base of passion. Anon, is it not true, that emotion belongs more to sensation than to discernment? Aye, in very faith, it seemeth to me that while the degenerate lives, his emotions cannot be regulated; neither can they be trained, for inheritance hath put its infallible stamp upon this mind. 'Tis an inherited brain intoxication, full of a blooded brain's moods, and flows in impulsive suicidal action. Yea, to me 'tis plain, that when reason is feeble, sensibility exalted, headstrong impulse and erring judgment follow. Intelligence beguiled and led astray, mental worth valueless. Aye, this mind's very constitution thwarts purpose, thus disappointing their souls' ambition. Here languorous effect elements, here soon follows languorous effects. Aye, is it not shown that an anæsthetic almost invariably leads to magnified and benumbing exaltation of personality, only to relapse immediately into a mixed, fallacious, and bubbling nothingness? Yea, to me excessive emotion is a soul's exhaustant, if not its anæsthetic. Nay, then, is not emotion born of sensation, feeling; now, then, is not feeling a bigger part of self? hence, all excessively emotional people tend to egoism—self-consideration. Yea, 'tis even excessive love of self; nay, doth not such a mind center in that being almost the world's existence? Now, anon, here doth strangeness well. This degenerate is destined, truly, to produce misery, for from harrowing and constant repetition they pass to obtunded sensibility. In the degenerate an obtunded sensibility reached, then comes loss of feeling; then this loss of feeling doth readily make the most fertile field for the development of crime.

THEODORUS.—Nay, then, reason dictates that, perchance, it were good sense not to let haste here trip us in our course. For 'tis strangely true, that words teem in force of expression; hence, alas, when we trip lightly o'er them, we may lay error in our discourse. 'Tis thus, I say, and the thought did come when thou saidst, Para Blar, egoism. Thus egoism is where one, from habit or moderate vanity, is given to self-praise or self-commendation. Whilst egoism is an excessive love of self, 'tis fixed habit, where all things are referred to self, along with this exaggerated, mistaken judgment of the relation of self to interests and surroundings of life. Egoism is a plain touch of disease, whilst egotism is a brain habit connected with health. There is in the degenerate a serious and morbid egoism which leads to delusion; thus, at times, his egoism begets in the mind a high o'ertowering feeling of the pride of content, which in turn as oft begets baneful introspection. In any walk of life, in degenerate communities, we find him, and his degenerate influence is manifest. Yea, verily a close study of a degenerate's egoism doth involve a strange, strong, picture. Intensity, unswerving intensity, doth sway him; his rank emotionalism is shown in absolute nakedness in an all-pervading morbid egoism. Nay, doubt it not, as an agent of influence in this peculiar sphere, he, indeed, becomes a character of force. He, this degenerate, hath an undying faith which never ebbs, but flows to increase; his emotional picturing, his intense appeals, his quivering fancy, oft, like an *ignis fatuus*, lead many a weak and impressionable and unthinking person into paths devious and doubtful. Yea, verily, the degenerate's brain indeed is the active source and begetter of the most stoundful and definite of fanatics. Aye, of all the men in the world who believe in themselves,

none believe half so much so as a degenerate fanatic. And true doth it become, that egoism carried to its logical ends wells into insanity. Anon, is it not true, that with the healthy misfortune doth weaken self-conceit? but not so with the degenerate; he but becomes so blind that he thinks the world wrong, and himself alone right; hence, it is almost a truism, that the degree of egoism marks the degree of degeneracy, for the egomaniac is a profound degenerate.

TIUS BU.—Heaven bless the mark! Odzooks! Aye, marry, I do but marvel, for, in my soul, e'en at this very moment, I do but thank my forefathers for their virtue. For it doth seem that if these tales of a degenerate be true, it comes near to showing that my parents must have been good and virtuous. Truly, it doth seem that vice is, indeed, a babbling tell-tale. If all these ills are true, which I have heard prated here so strongly, it but makes all unborn children in danger of disease and woe. Yea, upon my soul, I do but think that he who would escape degeneracy should have his forefathers made as far as possible like God.

THEO CELSUS.—Heavens, Tius! In verity, thy advice is like an angel: it courts wider action than bides on this earth. Still, thou wouldst have been a wonder, and, for that matter, all others who could make anything before they were born. Faith may laugh at impossibilities; but, upon my soul, I believe that in thy advice she would laugh in vain.

HEINE LANIUS.—Yea, 'tis said that in a far-off land, where warmth but feebly touched, and ne'er o'erflows, its man doth not know how to tearfully cry; that his tolerant nerves of hebetude knoweth only protectant feeling; and emotion doth but freeze in this soul's abode. Yea, too, that laughter is unknown; that his highest glee is but grant, and a frozen grin. Verily, I say, doubt it not, tears and laughter rule God's grandest brain. Yea, true tears are the truest index of a nation's mind; for a well-placed tear is the sublime mark of a soul's highest feeling. Tears and laughter are the constant attributes of the highest culture, and the rarest brain. Yea, to me it doth appear that the degenerate's laughter is always touched with water; for it but wells into tears without cessation of each. Verily, the crying laughter of a degenerate must confuse common sense consider, for from tears to laughter he comes from laughter to tears—he wells, for the degenerate's emotion is most oft an aqueous thing; sadly so, his laughter neither makes man lighter nor better, for it is but diseased nature. Anon, his laughter is as ill-timed as it is natural; for the straw that tickles the degenerate is not the source of his happiness—for its source is but infirmity. Anon, while man is the only creature which laughs, the degenerate is the only one which cries and laughs at the same time; but, forsooth, thou must remember that man, not woman, doth hold this consider. Verily, it seemeth to me that the tears of a degenerate are the sad privilege and liquid effect of morbid emotion. Yea, if tears are akin to prayer, then the degenerate is the holiest of the holy; for aqueous effusion, fountain-like, ever abides with him. His tears are, indeed, naught else than salted drops from a weakened brain, and will never reach the virtue of pearls of the first water. Gods! 'tis true that peppered onions, women, and degenerates are easy sources of tears. Yea, the riot of feeling is a good maker of these briny gems.

THEODORUS.—Perchance, nay, 'twere better said that I doubt it not,

that the flighty course of this Cohort, in this discussed theme, could be justly criticised, for thou hast gone in space wide and far and hath not well-trimmed thy consider. Still, God be praised! freedom of thought, though irrelevant, doth bring its blessings. Yea, to me 'tis but natural that its breadth and strange force should early court exhilarated flight and effect. But, I pray, let us now, ere we finish, follow system's intelligent beck. 'Tis said thus, the degenerate, e'en as a child, has an unhealthy, brilliant fancy. Yea, forsooth, we but know that 'tis true that fancy is ever rife among healthy children. Yet, equally true it is, that fancy runs most furiously when a weakened and nervous brain drives it; for all fancy bears errors, but more strongly so in the degenerate, in whose morbid brain it springs full of freak and of seemingly living shape. Even as children the degenerate's force of fancy brings pain and misery, and tints the real with misleading ideas. His morbid childish fancy rarely presents things in a true and healthful light, but seemeth readily, easily, and morbidly to beget misconception. Nay, then, misconception leads to a mistaken judgment, which ultimately destroys the moral sense. Yea, at a very early age, he naturally and easily revels in questionable acts. This lack of balance makes morality wane and falsehood tower. Verily, at school he is dreamy, listless, and an inattentive pupil. He may well in precocity; aptly perceive and comprehend; be brilliant in ideas; yet never strong in positive thought and healthy reflection. His is a wayard disposition. His instincts are cruel, and his attacks of passion violent, uncontrollable, and convulsive. For, from youth to manhood, fancy leads him in its devious, misleading, deluded, and freakish course. He is the subject of various nervous troubles. He wells in excitement; almost dies from depression. Every mental or emotional tendency is exaggerated. He has vague and indefinite feelings, which strive eternally in the shape of conspicuous actions, mysticism, vague sexual aspirations, and a restless desire for change, as shown in travel. Contradictory qualities and defects are powered. His intellect may be high in degree, and teem in faculties of imagination and invention, and well in rare gifts of speech and expression. He may be an artist or a poet; in fact, thoroughly emotional, rather than sensible. His superior quality in one direction is offset by the contrary quality in another. He is an Utopian dreamer, theorist, a lover of the highest and noblest things in nature, but an absolute nonentity in accomplishment. As Johnson says, "All power of fancy over reason is a degree of insanity." On this premise, the degenerate is certainly insane from childhood to the period of full development. He builds everything intellectual upon the basis of an erring and exalted fancy. Yea, this, with a weakened will and excessive emotionalism, lack of judgment, lack of attention, and lack of continuity of thought, certainly leaves such a mind little hope of healthy mentality. Truly, as a degenerate grows, his power of fulsome fancy colors every phase of thought, and begets the most wayward and extreme vagary—a morbid fancy, from his degenerate brain, so intense, so continuous, as to place beyond its sphere the possibility of cure. He is fated to be incurable. For, from childhood to maturity, from maturity to the grave, he has and will ever invent wondered stories, imaginings, and scenes, that he believes and tells us are real. Hence, it is his nature to delve and abide amidst improbabilities, impossibilities, the

deep, unreal, hidden, and impracticable. Hence, he readily and easily becomes the frenzied fanatic; the intense, religious "crank;" the deluded mystic. Yea, he founds new philosophies, and creates new sects. His intensity at times controls healthy minds; for his sudden gusts of power, passion, and emotion have, indeed, a prompt and wonderful influence upon many. His sheer intensity of purpose and absolute belief in self, his exaltation, his morbid and welling fancy, emotionalism, and frenzied delusion, seem to carry a forceful although errant conviction.

PARA BLAR.—Aye, to me it hath ever been more than interesting to trace how fancy in the degenerate soon wells into hallucination. 'Tis said that fancy and vanity are very close akin; for both spring from the imagined, the unreal, and the false; and both have their existence in belief, and thrive upon false idea. Hence, I can readily conceive how fancy and vanity are readily changed into hallucination and egoism. Fancy is an error and a delusion; it is, perhaps, a dweller in all healthy minds; but, carried to excess, it becomes hallucination, which is a consciousness of perception of an object without the existence of the object—a diseased condition. Thus, the hallucinated hear sounds where none exist; see things where nothing visible exists. Hence, 'tis a morbid event which occurs in the mind. Its minor degree is fancy. Sane persons may have hallucinations; but it never indicates a morbid condition of the brain. As Regis says, "Sane persons are subject, especially at the moment of passing between sleeping and waking, to hallucinations which they appreciate very sanely. Nevertheless, these phenomena (hallucinations) have been incorrectly called physiological hallucinations. A hallucination is always a morbid phenomenon; it is only its interpretation that can be either physiological or pathological." From this it would appear that many in the world—its leaders, its rare minds, in fact, the greatest geniuses of our times—have been at some time or other subject to hallucinations. Thus, Lombroso says, "Every one knows a celebrated hallucination of Cellini in his cell; those of Brutus, of Cæsar, of Napoleon, of Swedenborg, who believed that he had visited heaven, conversed with the spirits of the great dead, and seen the Eternal Father in person. Van Helmont declared that he had seen his own soul in the form of a brilliant crystal. Kerner was visited by a specter. Shelly thought he saw a child rise from the sea and clap its hands. Clare, after having read some historical episode, imagined that he, himself, was spectator and actor. Blake thought he really perceived the fantastic images reproduced by his pencil. A celebrated professor was often subject to similar illusion; and he believed himself changed into Confucius, Papirius, and Tamerlane. Hobbes confessed that he could not go into the dark without he saw visions of the dead. Bunyan heard voices. When Columbus was cast upon the shores of Jamaica he had a hallucination of hearing. He heard a voice reproaching him for giving himself up to grief and for having but a weak faith in God: 'What happens to you to-day is deserved punishment for having served the master of the world and not God. All these tribulations are engraved on marble, and are not brought about without reason.' Le Branch declared that he had distinctly heard, himself, the voice of God. Descartes, after a long seclusion, believed himself haunted by an invisible person, who charged him to follow up the search for truth. Byron

sometimes imagined that he was haunted by a specter. He afterwards explained this himself by the extreme excitability of his brain. Dr. Johnson distinctly heard his mother call him 'Samuel,' although she was living in a distant town. Pope, who suffered much from his bowels, one day asked his doctor about an arm which seemed to protrude from the wall. Goethe assures us that he one day saw his own image coming to meet him. When Oliver Cromwell was lying on his bed, kept awake by extreme fatigue, the curtain opened and a woman of gigantic proportions appeared and announced that he would be the greatest man in England."

THEODORUS.—Now, worthy sirs, we have been vouchsafed a profitable evening. This theme is but begun; and, truly, we shall strive to discuss it the best we know how as we proceed. Yea, we have many characters of rare and wondrous interest yet to discuss. Thus, 'tis ours next to speak of that rare and brilliant degenerate, the ill-balanced man; then of his brilliant brother, the eccentric man; then, too, not leaving out the neurasthenic, and that wondrous class of mind-weaknesses whose action oft make the world vibrate. Let us trust that preparations halteth not, but that industrious consider shall redeem any theme which this Cohort may assail. Much remaineth yet; for, in very truth, he that would learn, must learn a little at a time, and thus learn that little well. And let not haste thwart comprehension, by making our task burdened with too much, when just enough is only efficient. Here endeth this homily.

'Twas only a few moments after this Cohort had prorogued that our *quidnunc* bombasts had drifted together and Vegge thus addressed them:

"Gods! my friends, it hath come to me that words and thought hath the power of making many things. Nay, then, in verity, it seemeth that this Cohort hath made a new animal. Odzooks! who here hath ever seen such a creature? Yea, 'tis made like a man, with more sense than you and I; yea, made thus to what thus—to just kill himself to death? Gods! if thy degenerate be so common, why canst thou nor I find them. Truly, and indeed, they are more uncommon than dead asses. Truly, have I not heard that thy mule hath not the pride of ancestry nor the hope of progeny? Then, thy degenerate, too, canst not have; for he but comes, as Theo Celsus hath said, from some dead old rascal. Yea, he can have still less pride; for though he begeteth progeny, 'tis sadness for the begettor and woe for the begot. Yea, 'tis nonsense, blighting nonsense, that any man, forsooth, be made into a machine for the purpose of making misery. Gods! the next thing thou knowest, they will be making a man just for fun to tickle him to death! Verily, I say unto you, in the making of a man 'tis easy to kill him; but, by my beard! it taketh more to make him than words, thought, and stilted talkers."

"Verily," said Blong Bom, "to me it doth seem that a degenerate is like other men, so long as he sleeps. Yea, 'tis true, that a fool is ever a fool; but thy degenerate is never one—he is a tragedy. Yea, a fool is known by his folly; thy degenerate seems to be known by his multitude of follies. Verily, 'tis wondrous how mixed this degenerate is; for he that would cry and laugh at one and the same time, must have a twisted brain; for fun and pall doth kill each other. Heavens! 'tis a mixture which

cannot bide in either heaven, earth, or elsewhere—perchance, it might find a home in this Cohort."

"God bless the mark!" said Yong Us. "I am but like Vegge, and thinketh that he is a fool who makes a man but to kill him. Bah! 'tis twaddling nonsense! Yea, forsooth, if there only lived in this world great talkers, fools, and degenerates, 'twould be loud enough; still, it would be a world of woe. Yea, 'twould craze nature and make our rolling orb drop into space to end its own misery. Yea, Vegge, thou art right, this new animal bides only in man's mind, where all folly bides."

"Verily," dryly said Tius Bu, "thy degenerate hath a poor make-up; for 'tis neither flesh, fish, nor fowl—not even a funny fool. Yea, 'tis said he is a fool who cannot reason. Gods! 'tis true that he is a greater fool who can do naught else but reason. Gods! thy degenerate is oddity's own, for he is so straightly right as to be crookedly wrong. Yea, thus I say, God help the degenerate!"

"Nay, my friends, patience doth halt us here" said Vegge Go; " 'tis well that we bide our time, as Theodorus hath said this is but the start. Yea, let us wait, for more cometh, and then we shall have our say."

After this they ambled off, satisfied with their talk; but, truly, they had said some things that a wise man could and would not say. Hence, it was of some value; for oft the words of a fool are good teachers. Yea, verily,

More fools, more fun; more degenerates, more woe;
More talk, less done; more nothing, less show.

[TO BE CONTINUED.]

Missouri State Medical Association.—The meeting of this society held recently in Kansas City was one of the best known in the history of this organization. The officers elected for the ensuing years are as follows:

G. R. Highsmith, Carrollton, President; W. A. McCandless, St. Louis, First Vice-President; W. S. Wainwright, Kansas City, Second Vice-President; W. S. Allee, Olean, Third Vice-President; J. D. Brummell, Salisbury, Fourth Vice-President; W. E. Lucas, Munden, Fifth Vice-President; A. F. Dresel, Sedalia, Secretary; B. C. Hyde, Kansas City, Assistant Secretary; E. Van Note, Hamilton, Corresponding Secretary; E. S. Wright, Fayette, Treasurer.

It was decided to hold the next annual meeting at Joplin.

At Home.—Dr. and Mrs. Arnold Carl Klebs will be at home at 600 North State street, Chicago, Ill., after November 1st. Mrs. Klebs was Miss Margaret Forbes, of Boston.

FORMULAE.

Fluid Extract of the Ciliary Body.—A preparation called extractum corporis ciliaris liquidum, made from the ciliary body of the ox, with the addition of a little resorcin as a preservative, is recommended by L. Dor (cited in the *Klinisch-therapeutische Wochenschrift* for May 29th) in certain forms of sympathetic ophthalmia in which the aqueous humor is clouded with albuminous and fibrinous material from defective filtering action on the part of the ciliary body, while at the same time chemical changes take place in the vitreous body whereby it becomes softened, and fibrinous masses are attached to the crystalline lens and the iris. The extract is used both by instillation and by subconjunctival injection. For instillation, a drop of the solution (strength not stated) may be used every two hours.—*N. Y. Med. Jour.*

A Tæniafuge Mixture.—Van Aubel (*Gazzetta degli ospedali e delle cliniche*, May 19th) suggests the following:

℞ Amorphous salicylic acid	6	grs.
Ethereal oil of male fern	9	min.
Essence of cinnamon	10	drops.
Gum arabic	2	dchms.
Distilled water	3	fl. oz.
Simple syrup	1½	fl. oz.

M. To be taken fasting in the morning in two divided doses at an interval of an hour.

Dry Treatment of Infantile Eczema.—Dr. Comby (*Gazette hebdomadaire de medecine et de chirurgie*, June 23d) uses the following:

℞ Amidon		
Talc		
Lycopodium		
Subnitrate of bismuth	aa 300	grs.
Salicylic acid	15	grs.
Menthol	½	gr.

Dermatol, aristol, etc., may be employed in the same way.

An Injection for Gonorrhœa in Women.—Lutaud (*Journal de medecine de Paris*) employs the following formula:

℞ Alum		
Borax	aa 450	grs.
Quinine sulphate	15	grs.
Carbolic acid		
Essence of thyme	aa 30	drops.
Glycerin	3000	grs.

M. A tablespoonful in a pint of water, to be used as a vaginal injection two or three times a day.—*N. Y. Medical Journal.*

Gutaud's Amenorrhœa Pills.—The following formula is given in the *Jour. de med. de Paris*, December 19th (*American Medico-Surgical Bulletin*, May 25th):

℞ Strychnine sulphate	½	gr.
Iron peptonate		
Manganese lactate		
Scammony	aa 20	grs.

Divide into forty pills. Two to four pills to be taken every night on going to bed.

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THE DENVER MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The meeting of the American Medical Association held this year at Denver is especially worthy of mention for more reasons than one. The different sections were in such capable hands that there was very little left in the way of papers to be desired. The attendance was large, there being about 1700 doctors present, representing all the States, and quite a large number from the eastern portion of the country. Denver is an especially favorable place for such a meeting—its location, nearly in the center of the country, its altitude, and its generally delightful climate.

The entertainment of the ladies of Denver provided for the visiting ladies was all that could be desired, while the complimentary trips to the whole association to Colorado Springs, Manitou, Pike's Peak, and the Silver Plume, including a trip around the Loop and dinner at Idaho Springs, were enjoyed by hundreds. The universal courtesy of all railroad officials, hotel employés, and, in fact, all with whom we were brought in contact left nothing to be desired. The climate of Denver is such that many physicians from the east, broken, down in health or suffering from some lung trouble, have been induced to make their homes here; and as a

consequence, the medical brethren of that city are at least on a par with those of any other city in the Union. Taking it all in all, the Denver meeting was one of the most successful the society has ever had; and certainly a standard, both of papers and entertainments, was set that it will be very hard to surpass. J. W. HEUSTIS.

A NEW POINT IN THE BIOLOGY OF THE BACILLUS TUBERCULOSIS.

In the realm of bacteriology new factors present themselves with surprising rapidity. Whilst a seeming lull exists as regards marked and astonishing discoveries, still the era has been reached in which new fields of investigation are being carried on with unceasing industry. Minor details are being pushed with vigor, and biological factors of importance being discovered. We notice that Marpmann (*Centralbl. f. Bakt.*, xxii., No. 21) has shown new factors in the discussion of the biological elements of the tubercle bacillus. Thus, as has been known, it is characteristic of aerobic microbes to secrete a cellulose capsule, while the anaerobic are distinguished by the formation of volatile gases, such as marsh gas, sulphuretted hydrogen, phosphoretted hydrogen, and ammonia. Marpmann finds that tubercle bacilli grow on a new medium, consisting of crude leathin, rendered germ free by repeated warming to 50° C. "At first only traces of volatile gases are given off, but after five or six days, if the access of air is prevented, the presence of phosphoretted hydrogen can be demonstrated by the contained gases blackening paper impregnated with silver, not lead." Marpmann concludes that the tubercle bacillus is capably anaerobic, and can give rise to reduction as well as oxidation products. The formation of phosphoretted hydrogen is much more marked in the case of the cholera bacillus, and it is suggested that the symptoms of cholera intoxication may be due to that gas. Similarly, it is possible that this and other gases may be the causes of the symptoms of other bacterial infections. If this is the case, treatment should aim at neutralizing them, as well as at increasing the resistance of the tissues to them. It is this new suggestion which the author considers may lead to most important results. (*British Medical Journal.*) Wonder, then, need not come when we find the extremely uncertain and erratic results obtained by the serum treatment of tuberculosis. It is certainly reasonable to assume that just so long as biological factors in the growth and habit of microbes are undiscovered, our knowledge of treatment must be one-sided and inefficient. We believe that there is only one factor which is competent to combat the enormous prolific power of microbe life, and that does not rest in the use of any form of modified serum, but must come from a potent force. This potent force can only lie in phagycytosis. Phagycytosis meets living, amplifying life with similar life, and eliminates at once the resident elements of toxic gas formations.

MOUNTAIN AIR AS A THERAPEUTIC AGENT, ESPECIALLY IN ANAEMIA.

We notice in a recent number of the *British Medical Journal* an exhaustive and interesting study of this subject. This article starts out with

the assertion of Lepine, of the marked effect of altitude on anæmia, and that Paul Bert first drew attention to this subject in 1882. That Bert proved that a mountain animal's blood absorbs more oxygen under similar conditions than one on the plain. Muntz proved this to be the fact in rabbits and sheep, thus: "If the fixed matters, the metallic iron of the blood, and the oxygen absorbed be each represented by 100 for the plain animals, the corresponding numbers for the mountain animals are 139, 174, and 180. Still more striking were two results with sheep which had lived on the pau cake only six weeks." Continuing, this article says: "All the most reliable evidences go to show that the increase of red corpuscles is real, and has nothing to do with a supposed concentration of the serum through evaporation. Viault and others have remarked the great number of corpuscles in blood received on elevated places, which are probably developing erythrocytes. This explains the fact that the hæmoglobin does not increase so rapidly as the corpuscles, since the young globules do not contain their full amount. Finally, Schauman and Rosenquist have observed nucleated red corpuscles in the blood of dogs and rabbits living for some weeks under a bell-jar, under a depression of forty-five to forty-eight cm. of mercury. Suter and Jacquet found that in rabbits which had lived in Davos for four weeks, not only was their blood one-sixty-ninth richer in hæmoglobin than that of those left behind at Balse, but the quantity was more per kilogramme of body weight (about one-tenth)." The mechanism of the increase of red corpuscles is still not properly understood. It is certain that in healthy persons this increase is not permanent, but disappears on a return to the plains as rapidly as it came. However, the most important fact is that anæmic people retain more red corpuscles than they had before their mountain sojourn for long after their return. O.

EXPLORATORY GASTROTOMY.

We notice in the May 7th number of the *Philadelphia Medical Journal* Professor Keen, in his course of the Cartwright lectures on the "Surgery of the Stomach," gives some very pertinent and well-timed suggestions upon exploratory gastrotomy. We heartily agree with Professor Keen that a further object for opening the stomach beyond the removal of foreign bodies, retrograde dilatation of a stricture of the œsophagus is the diagnostic element of exploratory gastrotomy. The writer's experience has indicated that of all organs in the body the stomach is one which appears to respond with marked and rapid effect, and in all of his cases in the most successful manner. Indeed, a bad result here would certainly shock us. Successes have been constant.

The writer, in removing a gastrolith some years ago which weighed over 10,000 grains, removed only a portion through an incision between five and six inches in length on anterior surface of stomach. After this incision was stitched up another foreign body was found in the stomach at its splenic end. Here had been a plain surgical mistake. It was impossible, with safety, to remove stitches from incision already stitched up, as an inability to find the needle holes was manifest, so that a new incision of similar length was made; thus, then, this stomach had two incisions in it when one only should have been. The case progressed to uninterrupted

recovery. We have repeatedly performed gastrotomy for cardiac cancer, particularly Wenzel's operation for immediate feeding, never having a fear of adverse results.

It was only recently (that is, some three months ago) a gentleman presented himself who had suffered from a vague and indefinite stomach trouble. He had been under treatment for two years. Examination failed to show anything; inflation and ingestion of stomach showed seemingly normal outlines; palpation, percussion, were negative. The patient was informed in a straightforward manner that his case was obscure, and that the writer did not know what was the matter. Owing to a previous injury, it was perhaps thought that this might be the starting cause; and from information received the diagnoses made by several physicians were syphilis, cancer, and so-called eutasis. The patient was informed that an exploratory laparotomy ought to be performed. As all remedies had failed, the patient readily assented. Upon opening the abdominal cavity through median line, immediately above the stomach, it was found that the stomach was not involved at all, but that there existed cancer of the liver upon its concave surface, with extensive adhesions passing to the posterior surface of the stomach's pylorus, so that, no matter what position the patient might assume, the cancerous mass lay out of the way, under and on the concave surface of the liver.

We are free to confess that our honest opinion is that too many cases are permitted to die or remain undiagnosticated, when a laparotomy or gastrotomy would elucidate and, at times, save. We hold that in diagnoses the full application of the five senses gives infinitely broader knowledge than the imperfect application of one. As it now stands, the grouping of vague symptoms and the imperfect application of the sense of touch are the foundation elements in many diagnoses. Certainly, the application of the sense of sight relieves a case of vague theory and places it on the plane of fact. We maintain that a case of stomach trouble getting progressively worse is the fit subject for an exploratory gastrotomy. O.

THE MEMORY OF FISHES.

We notice in the April number of the *Jonrnal of Mental Science* an endeavor to prove that fish have both intelligence and memory; that fish kept in tanks plainly evince intelligence and memory in divers ways; that they learn to evade means used to catch them. Still, we maintain that their intelligence and memory is of the most fishy sort, for a little bait will still catch a big fish; for there are just as many fish caught now as were ever caught. Their intelligence is too watery to be strong. We admit that there is little use in teaching fishes how to swim; and 'tis true that the biggest and best fish swim near the bottom, inasmuch as their provender is more bountiful there. On the whole, while it is good reading, we are sorry that we are compelled to think that the increased intelligence and memory of fish is of negative benefit to the fish themselves. A fish may come to his senses after he gets into a net; then it is painful retrospection; but the improvement in mentality of the fish has still left the water unruffled. We honestly believe that "the big fish eat the little ones, the little ones eat the shrimps, and the shrimps are forced to eat mud." What the mud does, is not said.

JUVENILE SMOKING.

Lurid indeed are the average assertions made in the daily press, made in the secular press, and even made in the staid, sensible, medical press, concerning cigarette smoking. It is stated—and, perhaps, more thoroughly known in the medical profession—that statistics is a flexible medium, used to prove an uncertain argument—that statistics can prove anything except itself. Thus, when cigarette smoking is discussed, the juvenile is brought along with it. It is a hard, statistical fact that, in the year 1897, over four billions of cigarettes were sold in the United States, largely to young persons; that the legislatures of thirty-three States have enacted stringent laws forbidding sale, barter, or giving of tobacco to young persons. No sensible person, particularly the physician, doubts that excessive smoking, especially in youths, acts injuriously on the nervous and digestive systems, and as well on the heart. There need be no doubt that tobacco is hurtful upon nine out of every ten who use it; but we maintain that when it is said that out of four billion cigarettes made in this country yearly, a majority were used by young persons, is, to say the least, an assertion not based upon fact. It is a wildly accepted assertion, which comes with ease to use as an argument on juvenile smoking; for we maintain that the youth who smokes cigarettes is just as liable and will just as eagerly use pipe or cigar. Not only that—we assert that he constantly does. The tobacco user, when appetite comes, is not too fastidious to ignore gratification in the shape of either pipe or cigar. The Hon. Clark Bell, of the *Medico-Legal Journal*, has shown the fallacy of many assertions in this direction. The headline in a daily paper emblazoned thus, "A Bright Schoolboy Made a Lunatic by Cigarettes!" but the schoolboy could not be found, and the authority given by the paper indicates that no such assertion was made. Those "crazed by the use of cigarettes" have never existed. An "Eleven-year-old Boy in Prison, a Wreck from Cigarette Smoking!" was the fanciful assertion of a sensation-loving reporter. Again, out of the thirty-three States which have enacted laws, how many have prevented the juvenile from using tobacco? The average American youth's ingenuity is equal to any emergency created by legislatures. Such laws may prevent the use of cigarettes to a limited extent, and for a time turn the youth to pipe or other means, but we doubt the ability of these laws to lessen the use of tobacco. Old is the saying, "the law devised, its evasion contrived." Common error makes more than one legislature.

Serum Therapy in Influenza.—Carrieu and Pelon (*Gazzetta degli ospedali e delle cliniche*, May 19th) reported to the French Congress of Internal Medicine the case of a soldier attacked with severe influenza, which was complicated by symptoms of meningitis and pleuro-pneumonia. Streptococci in abundance being found in the sputum, four injections of Marmorek's serum, each of twenty cubic centimeters, were given, with the result of speedily subduing the fever against which both quinine and antipyrine had proved inefficacious.

ABSTRACTS.

The Patent on Antitoxin.—The announcement that Professor Behring has been granted a patent as the inventor of diphtheria antitoxin will be received by the medical profession with feelings of keen disappointment. The profession of this country has always sternly discountenanced any attempt on the part of its members to make scientific achievements opportunities of personal profit. Such discoveries as the medical profession have made have been fully and freely donated to the service of suffering humanity. Professor Behring's claim to be the exclusive inventor of antitoxin not only indicates a spirit of commercialism which does its possessor no credit, but it displays a disposition to assume credit for the labors of others, and to make of these an occasion of personal gain which can only indicate a high degree of moral perversity.

Professor Behring claims as his invention: 1. A process "of producing diphtheria antitoxin, which consists in inoculating horses or other animals capable of being infected with diphtheria with repeated doses of diphtheria poison or living diphtheria bacilli of gradually increasing quantity and strength so as to immunize them and form in the blood a counter-poison for destroying the poison secreted by said bacilli, drawing off the blood from said animals, separating the serum from the blood corpuscles, and concentrating the former for use substantially as set forth.

"2. As a new substance, diphtheria antitoxin, consisting of the concentrated serum of the blood of animals treated with diphtheria poison and having the characteristic of immunizing test animals against infection with diphtheria, and curing them when artificially infected with diphtheria, said serum containing a counter-poison having the property of destroying the poison secreted by the diphtheria bacilli substantially as set forth."

It is almost superfluous to point out to any well-informed reader that Behring's claim to have done this is as preposterous as it is unjust. The principles upon which immunization to diphtheria was finally achieved were of gradual growth, the outcome of researches by thousands of untiring workers. The foundation of the work was undoubtedly laid by Pasteur in his method of immunizing against chicken cholera and anthrax. So long ago as 1887 Sewall immunized pigeons against the poison of rattlesnakes. He says, with genuine modesty, his work was undertaken with the hope that it might form a worthy contribution to the theory of prophylaxis, and it was a most worthy contribution. In 1887 Roux and Chamberland immunized animals against malignant edema with sterilized anthrax cultures. In 1890, the same year in which Behring and Kitasato published their results in immunizing animals against diphtheria and tetanus, Fraenkel published his results in diphtheria after treating animals by weakened germs and filtered cultures. In the clinical uses of the serum Aronson's name must not be forgotten. His serum was first used in the Children's Hospital at Berlin in 1894. The serum of Roux had been used in one of the hospitals of Paris a month earlier than Aronson's in Germany. Emerich and Aronson both dispute the priority of Behring, and the French

Academy of Sciences awarded their prize for antitoxin jointly to Behring and Roux, a fact which very clearly denotes the difficulty of estimating priority of merit in a scientific struggle in which the numerous competitors were so equally distinguished.

The principle which lies at the foundation of the invention of diphtheria antitoxin, and that which underlies all serum therapeutics, is that the blood of immune animals can be used in the treatment of others. Behring did not discover this principle, and in its application he was undoubtedly anticipated by the Japanese workers. If to any single man must be ascribed the distinction of being the inventor and discoverer of the beneficent principle of immunization, the honor belongs to the immortal Pasteur.

The manufacture of antitoxin has been carried out for many years in England, France, Switzerland, Italy, Russia, and Japan, and in these countries no one has had the temerity to attempt to control exclusively its manufacture. In this country it is made by five Boards of Health and by several manufacturing firms. In this country alone has an attempt been made to monopolize its production, it being admitted that elsewhere the claims of any patentee are inadmissible.

If Professor Behring admits any merit in the work of his predecessors and contemporaries, his claim to be the exclusive inventor of diphtheria antitoxin is in contravention of all the ethics of a scientist's career. His claim is an offense against common morality. Had Simpson patented chloroform anesthesia, or had Lister patented antiseptic surgery, the world would have had two selfish empirics, and lost two medical heroes. If Behring, by the righteous judgment of mankind, can be adjudged sole and undisputed inventor of antitoxin, he has a place in the Temple of Fame for achieving the most beneficent discovery of modern times. It remains to be seen whether the temptation to be rich will overcome his ambition to be great, and whether for a tinsel crown he will barter a diadem of everlasting renown.—*Medical Age.*

An Adult Male With Four Nipples.—Jacob R., aged thirty-seven years, entered the Medical Dispensary of the Hospital of the Protestant Episcopal Church (service of Dr. Ketcham) suffering from chronic bronchitis. On physical examination, it was noticed that he had four nipples, two in the normal position; and, in addition, one on the left side, at the upper border of the sixth rib, about a quarter of an inch within the nipple line; another on the right side, in about the same position as the latter. The lower nipple on the right side was not as well developed as the others. The patient had no knowledge of any member of his family having a like peculiarity. The rarity of such cases seems to warrant the reporting of this one.—THOMAS J. YARROW, JR., M. D.—*Philadelphia Medical Journal.*

Treatment of Whooping-Cough by Phenocoll.—M. Uargus, of Barcelona, first tried phenocoll in 1895, and derived from it very good results. I have used it, too, on seven children who were attacked with whooping-cough during measles. In all there was marked and rapid improvement. The remedy diminished the frequency of the attacks and their intensity; the nocturnal attacks especially were less frequent, and the total duration

of the disease notably lessened. The dose administered was from one to two grammes daily. M. Fabistocherski has had like success in forty cases at the Hospital "St. Olga." Without being a specific remedy, phenocoll offers real advantages in whooping-cough, and should always be resorted to when other remedies, particularly morphine, are contra-indicated, especially in young children, in whom the disease is often dangerous. There are no inconveniences attending its use.—*Med. Rev. of Reviews, February, 1898.*

Doctors' Day in Germany.—The annual meeting of German doctors, called Aerztetag (Doctors' Day) will be held this year at Wiesbaden, June 28th and 29th. The discussions at this meeting are never on medical subjects, strictly speaking, details of the practice and theory of medicine and surgery, and the like, but on subjects that concern the doctors themselves, and their relations to each other and to the community. Last year the subjects for discussion were quackery, for which the Germans have a word that equals our own in expressiveness, viz., Kurpfuscherei, and the question of school-physicians. As the result of the discussions, a certain number of regulations have been made and old ones enforced as to the advertisement and sale of proprietary medicines, as we have noted from time to time. The recommendations of the meeting as to school-physicians have led to the appointment of such officials in many cities of Germany, and it is but a question of time until others will do the same. The subjects for discussion this year are, "The development of organization among physicians," which Professor Merkel, of Nürnberg, will introduce; "Medical studies for women," on which Professor Penzoldt, of Erlangen, will speak first; and "The relation of physicians to insurance companies," with Professor Loebker as referee. As can be seen, the meeting promises to be a most interesting one.—*Philadelphia Medical Journal.*

Anemia Treated by Ferratin.—Roler (*Chicago Medical Recorder*, November, 1897) gives an abstract of three cases, in which treatment by ferratin alone, in three-grain doses, three or four times a day, was efficiently employed. A girl of twelve years, suffering from simple anemia of a marked degree, was practically cured within a month. The number of red-blood corpuscles increased during the administration of ferratin from 2,000,000 to 3,800,000 per ccm. The appetite improved, constipation disappeared; the cheeks and mucous surfaces were tinged with a healthy red color, and the sensation of fatigue disappeared. Another girl, aged eighteen, suffered three years from anemia and constipation. Ferratin was given, as in the first case, but no marked improvement was manifest until the end of the third week. At the end of the seventh week all symptoms had disappeared. A young man, aged seventeen, suffering with insomnia, anorexia, headache, and fatigue, which latter prevented his engaging in sports, was given two grains of ferratin four times daily. Within a month the symptoms had greatly improved, and the blood count showed that the red corpuscles had increased from 2,800,000 to 3,400,000 per ccm.—*Medical News, January 22, 1898.*

PUBLISHER'S DESK.

Practice vs. Theory.—Fanciful theories (*a la* hammer and board test) cannot exist in opposition to years of practical application of William R. Warner & Co.'s standard pill formulæ—years which have demonstrated the rapid disintegrating properties and consequent therapeutic value of Warner's soluble pills. Millions of William R. Warner & Co.'s pills have been used by practitioners throughout the world, and the immense number of professional endorsements they have attest their solubility and potency.

Commenting on the "hammer and board" test, the *Monthly Retrospect of Medicine and Pharmacy* sums up the whole matter in a few words:

"Is it possible that physicians have prescribed an 'insoluble and inert' class of preparations throughout their career? If so, the question naturally presents itself, To what can be traced the excellent results following the administration of mass pill in numberless instances? If the ingredients of these mass pills did not oppose and correct a diseased condition, what did?

"Any remedial agent which has 'deteriorated with age' and is 'insoluble," would have no effect when taken. Therefore, if the desired results are obtained, and the patient has been cured, that is *prima facie* evidence that the said remedy has not 'deteriorated,' and that it is entirely soluble."

Physicians relying on an experience of over forty years with "Warner's Soluble Pills," with satisfactory results, will continue to prescribe the pill which disintegrates in twenty minutes (Warner's pil. cathartic compound), in preference to the one that disintegrates in one hour and five minutes (friable pil. cathartic compound), even though the former will "dent a board" and the latter will not.

Warner's pills are soluble, potent, permanent and reliable, because they are *prepared from pure drugs*, in a scientific manner. The coating (sugar or gelatin) hermetically seals and protects the contents indefinitely, and upon ingestion of the pills the coating dissolves in a few minutes, thus liberating its ingredients in a condition favoring rapid assimilation.

A Useful Chart.—Write to the Imperial Granum Food Company, New Haven, Connecticut, for sample copies of their new "Nursing World Fever Chart" for recording the vital signs and other information relating to the baths given in the treatment of fever cases. It is very complete, and will be found especially useful in typhoid fever.

The Best and the Cheapest.—In prescribing either medicine or nutriment, a physician must often consider the question of what is the most economical as well as what is the best for his patient. And it is only occasionally that he is made happy by the knowledge that the cheapest is the best. He always knows that "the best is the cheapest," but this helps him very little if ecomony must be thought of.

John Carle and Sons point with pride to the fact that their prepared

food, imperial granum, is the most economical, as well as best food on the market, and in proof of this, they ask physicians to carefully note the weight of their handsome "small" and "large" size air-tight tins, and also to kindly notice the length of time either one will last, bearing in mind that their sterilized tins form the lightest, as well as safest retainer that can be used.

To accommodate our growing business with physicians, we have been compelled to add to our office and laboratory room the adjoining building. Our business address hereafter will be 510 and 512 Spruce street. St. Louis Physicians' Supply Company. W. B. Addington, Ph. G., President and Manager. Send for our catalogue of "Special Preparations" for physicians.

Kryofine.—At the Mt. Sinai Hospital, New York, in the services of Drs. J. Rudish, A. Meyer, and A. G. Gerster, it was found that this drug "reduces temperature gradually, attaining its maximum effect in from three to six hours. As an analgesic, it has given excellent results in the treatment of headaches from whatever cause. It has also proved very effectual in a number of cases of neuritis, particularly sciatica.

"In relieving the malaise of acute febrile conditions, nothing we have used has given such favorable results. As an hypnotic in insomnia, unaccompanied by severe pain, it has proved of undoubted value. Upon the kidneys, even in cases of acute and chronic nephritis, no bad effects were observed. The fact that kryofine was successfully used for the relief of temperature and restlessness in acute and chronic endocarditis and pericarditis, without any manifestation of depression, speaks well for the action of the drug on the heart."—*N. Y. Med. Journal, March 26, 1898.*

The Sulphuric Ether, Conc., U. S. P. 1890, which Messrs. Herf & Frerichs put on the market, is manufactured by an improved process of their own which enables them to eliminate all those impurities which are generally contained, even in the better grades of sulphuric ether now offered in the market. These impurities, to a large extent, are derived from fusel oil and aldehyde contained in the alcohol from which the ether is made. The ether offered by Herf & Frerichs is, therefore, especially adapted for anæsthesia, since no secondary effects will be observed in its use, which are often caused by a small admixture of derivatives of fusel oil contained in the ordinary ether.

"H. & F." ether, U. S. P. 1890, is put up in tin cans which are hermetically sealed, and responds in every respect to the requirements of the U. S. P.

Campho-Phenique.—"This preparation commends itself to the medical profession for the following reasons:

First.—"Because it is the result of scientific experimentation by scientific men.

Second.—"Because the tests as to its efficiency as a germicide were conducted in a scientific manner by scientific chemists and bacteriologists.

Third.—"Because the preparation was introduced to the medical profession in a proper, ethical manner, and without exaggerated claims and unprofessional horn-blowing in the journals and newspapers."—A. C. BERNARS, A. M., M. D., M. R. C. S.

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ORIGINAL ARTICLES.

ULCERATIVE ENDOCARDITIS.[1]

By W. W. PECK, M. D., of Darlington, Wis.

ULCERATIVE ENDOCARDITIS is an inflammation of the lining membrane of the heart, which is attended by a breaking down of more or less of the resulting vegetations and erosion of portions of the inflamed area.

The first account that we have of endocarditis as a distinct disease is that of Bouillaud, early in the present century. Prior to that time attention had been called to diseased conditions of the endocardium by several observers, but to the French author belongs the credit of giving the profession the first intelligent description of this disease, and of associating it with rheumatism, pneumonia, and pyæmic conditions.

[1] Read before the Tri-State Medical Society of Iowa, Illinois and Missouri, at Dubuque, Iowa, April 5, 1898.

The next advance was made by Virchow, who described how other organs of the body frequently became affected in this disease through the process of embolism.

Following Virchow we find Klebs, in 1878, pointing out the fact that all cases of endocarditis were due to micro-organisms and might be secondary to any of the diseases due to bacterial origin.

Later on Fraenkel and Sanger discovered various micro-organisms (more especially the pyogenic varieties) by both culture and inoculation. Since their time many bacteriologists have demonstrated different micro-organisms, until the view originally advanced by Klebs has been proven correct, nearly all of the bacteria known having been found in cultures taken from the diseased valves.

Thus it has become an established fact that the origin of endocarditis is the colonization upon the endocardium of the micro-organisms of an infectious disease.

Accepting this as true, it must always be regarded as a secondary trouble.

The diseases most frequently complicated with endocarditis are rheumatism, pneumonia, chorea, septicæmia, erysipelas, gonorrhœa, diphtheria, variola, typhoid fever, influenza, tuberculosis, nephritis, malaria, scarlatina, the puerperal state, dysentery, and very rarely syphilis.

Of these, rheumatism is the most frequent cause, especially acute articular rheumatism in young subjects. Tonsilitis is also occasionally complicated with endocarditis, and is frequently of rheumatic origin. Indeed, the tonsils are considered to be the most frequent infection atrium for the rheumatic micro-organism.

Chorea, an allied disease with rheumatism and supposed to be caused by the same bacteria, is also occasionally complicated with endocarditis.

Next to rheumatism, endocarditis is most apt to complicate diseases of septic origin—or, in other words, those produced by the micro-organisms of septicæmia and pyæmia—such, for instance, as puerperal infections, sepsis after surgical wounds, osteomyelitis, periostitis, dysentery, erysipelas, etc.

Gonorrhœa and the eruptive fevers are occasionally complicated with endocarditis.

The source of bacterial infection in these cases is usually easily determined but occasionally obscure. There are good grounds for believing that these disease germs may remain in the system for months, perhaps years, in an innocuous state, and some fresh exciting cause may renew their activity.

The avenue of invasion, as summed up by Pettit, may thus be from the skin, in accidental or surgical wounds; from suppurating surfaces, furunculosis, ulcerations of the upper lip, gangrene; from the bones, as in osteomyelitis, vertebral caries, otitis media; from the mucous membranes of the genital tract, most frequently after labor or abortion, affections of the prostate, of the urethra, of the bladder, or intestinal ulcer, dysentery, typhoid fever, tuberculosis; from the bile passages, or respiratory passages, especially following suppurative affections of the lungs.

Ulcerative endocarditis most frequently appears upon an endocardium that has been previously diseased. "According to Banti's report of sixty-six cases collected by him, one species of bacterium alone was found in

forty-seven, and several species associated in nineteen. Of the forty-seven cases, the staphylococcus pyogenes aureus was found thirteen times, the staphylococcus aibus once, the streptococcus pyogenes eight times, and the diplococcus lanceolatus fifteen times.

"In the sixty-six positive findings, streptococcus or staphylococcus pyogenes or the diplococcus lanceolatus was demonstrated fifty-one times; in the other fifteen cases, there were found various micro-organisms." (Whittaker.)

Endocarditis is thus shown to be caused by a deposit and colonization of any one or several of the micro-organisms upon the endocardium, penetration into the underlying tissue, fibrinous collections and vegetative growths, mainly upon the valves, which are the most usual seat of deposit.

These vegetations may break down by an ulcerative process, portions of them may become detached and, entering the circulation, cause embolism of distant blood vessels in any part of the body, thereby giving rise to a wide range of symptoms, according to the location of these emboli.

As the inflammatory process may vary in all grades from a mild to the severest type, so the effect upon the diseased endocardium.

In mild cases there may be nothing more than a thickening of the endocardium from the inflammatory deposits; more frequently vegetations form which are exceedingly liable to break down, producing the ulcerative variety.

As a rule, pneumonia, the rheumatic and allied cases, such as chorea and erythema nodosum, produce simple thickening of the mucous membrane and, occasionally, vegetations, while the septico-pyæmic affections are more apt to produce the ulcerative forms.

The ulcerative and vegetative varieties pass gradually into each other, so far as their anatomical appearances are concerned.

These inflammations are of a diphtheritic nature, the ulcerative form leaving coagulation necrosis of the solid tissues.

In this type of the disease the destruction of the tissues may go so deeply that a valve or any part of the endocardium may be extensively eroded by the ulcerative process.

If it be a valve that is thus weakened, the thin tissue remaining may give way under the pressure exerted upon it, and an acute valvular aneurism may be the result.

It may even cause a perforation of the diseased valve. The chordæ tendinæ may be similarly affected. The septum, or even the heart itself, may thus become perforated. The suppurative form gives rise to small abscesses in the deeper tissues and in the base of the vegetations. These vegetations present a great variety of shapes, causing more or less interference with the circulation, according to their location and size.

They may be located in rows at the free margin of the valve, thereby preventing their perfect closure; frequently spread over the surface of the valves or collected in groups, forming nodules or cauliflower-like excrescences.

When they affect the walls or septum they are usually disposed irregularly, and may be in masses or studded over the surface.

"These vegetations are caused by an exudative inflammation in which the exudations permeate the tissues and in part coagulate.

"When coagulation takes place the tissues undergo necrosis.

"Where there has only been an infiltration of leucocytes the tissues persist." (Ziegler.)

The result of these inflammatory changes, where a case does not early prove fatal, is the setting up of a plastic or formative inflammatory process, by which new tissue is formed and repair effected.

This process of repair starts in the underlying and surrounding tissues which bordered upon that which had been destroyed; the time consumed may be long or comparatively short, depending upon the amount of damage done and the condition of the vital forces. As a result of this repair, we have thickened and cicatricial tissue, and the valves are distorted and deformed in various ways. The chordæ tendinæ are frequently shortened and thickened, and new adhesions formed, interfering in various ways with the heart's action and the proper circulation of the blood. Thus, as a result, we have stenosis and incompetence, sometimes both, occurring in the same valve. We sometimes have fatty degeneration and calcification of the affected portion of the endocardium.

Endocarditis affects, in a large majority of cases, the mitral valve, and next in frequency the aortic.

When of pyæmic origin the mitral is always affected. Rheumatism affects these two valves in the proportion of about twelve to one in favor of the mitral. When the tricuspid and pulmonary valves are affected it is, as a rule, secondary to a previous involvement of the left side of the heart. Frequently inflammation of the muscular structure of the heart, and also the pericardium, are concomitant with endocarditis. As a result of ulcerative endocarditis, a detachment of the vegetations, or thrombi, we have embolic infarcts in different organs of the body, which are manifested by various symptoms.

One of the most frequent to become affected is the brain, the symptoms differing according to the location of the emboli and the resulting effect upon the circulation.

Most cases of apoplexy in early and middle life are caused by embolism as a result of endocarditis, instead of cerebral hemorrhage.

Should emboli become lodged in the vessels where collateral circulation can be easily established, the symptoms are not marked; but should they lodge in terminal vessels, they are pronounced.

Especially are the emboli grave where they follow septic endocarditis, for this furnishes a new field for infection and abscess formation. As a result of cerebral embolism, we may have apoplexy, paralysis, loss of function of any of the nerves of special sense, of speech, various forms of insanity, etc.

The emboli are most frequently deposited in the branches of the left carotid artery on account of its distribution, being in a more direct line of the circulation.

Meningitis is a frequent concomitant of cerebral emboli, especially of the pyæmic type. The after-effects of these accidents depend entirely upon the part involved and the nature of the infection, the septico-pyæmic infections leading to the most grave results.

Embolic infarctions of the spleen are met with as the result of the detachment of vegetations, or thrombi, in ulcerative endocarditis.

These are of various sizes and shapes, some being of hazel-nut size, while others cover one-half or two-thirds of the entire spleen.

In the early stages they may be either pale yellow or dark red in color; later, more or less decolorization takes place in them.

These infarcts of the hemorrhagic variety are caused by the veins, capillaries, and tissues of the affected area being engorged with blood. The decolorization of these patches is affected by the red blood corpuscles losing more or less of their pigment and becoming disintegrated.

The cell structure and the trabeculæ break down into a granular mass, and a necrosis of the affected tissues ensues.

Unless these infarcts involve too much of the spleen or become infected with bacteria, they gradually heal by absorption and cicatrization, leaving a shrunken and puckered cicatrix.

Embolism of the lungs causes trouble in direct proportion to the size of the vessel involved. The symptoms developed are: pain more or less severe, vomiting, rapid and difficult breathing, hemorrhage, and expectoration of frothy and bloody mucus. Occlusion of one of the larger branches of the pulmonary artery may cause sudden death, always severe syncope, suffocation, and, at times, convulsions.

The infarct in these cases is usually subpleural, with well-defined borders, and is of a brownish-red color in the recent state.

Emboli in the lungs always come from the right side of the heart, and for this reason are less frequent than embolism of brain, spleen, liver or kidneys.

The decolorization of red corpuscles, with the gradual liquefying of clot and reabsorption, takes place similarly to but more rapidly than the splenic infarct. They often disappear, leaving no permanent tissue change behind them. At other times they may leave more or less thickened cicatricial tissue. Like infarcts in any other part of the body, if they become infected they are apt to result in suppuration. Sometimes we have gangrene of a part of the lung as a result. Embolism in the kidneys is recognized by chill, vomiting, and pain in the lumbar region, followed by albuminuria and hæmaturia.

The tissue, deprived of its arterial supply, soon perishes and becomes grayish or yellowish in color.

This is followed by capillary hemorrhage, as a result of the engorgement in the tissues immediately surrounding the embolic area.

This hemorrhage may be slight or extensive.

The renal epithelium perishes over the affected area, and epithelial cells and albumen appear in the urine as a result. The tissue which is the seat of the infarct becomes destroyed in part, more especially the epithelium. The fibrous tissue and glomeruli are sometimes but slightly impaired. If in these cases circulation is soon re-established, slight damage will follow; but, if necrosis takes place, more or less cicatricial tissue is the result, which interferes with the proper function of the kidney according to the amount of destruction. Embolism of the liver occasions chills, pain in the hepatic region, swelling, with tenderness and icterus. On account of the free anastomosis in the liver, emboli do not cause as serious after-effects as in some of the other organs. Should one of the smaller branches supplying the lobules become obstructed, the part of the individ-

ual lobule supplied by the branch would lose its arterial supply and thereby perish. The repair after embolism in the liver is similar to that in other organs.

Embolism of the mesenteric arteries is followed by colicky pains over the abdomen, a loose condition of the bowels, and the passage at times of blood. The shock to the system is apt to be less severe than in embolism of terminal arteries.

Embolism of the retina may occur, followed by sudden loss of vision. Like emboli in other localities, if infected or of a septic nature, they may cause destruction of the affected eye.

Embolism of the vessels of the cuticle may cause different eruptions. Erythema, roseola, and urticaria may develop. Also ecchymosis and purpuric patches.

More or less extensive gangrene of the extremities may develop as a result of thrombus of the larger arteries.

Ulcerative endocarditis of septic origin may show itself in different forms, depending on the source of infection.

Thus, we may have rheumatic, pulmonary, typhoid, cutaneous, meningeal, and other forms. The rheumatic form usually follows an attack of acute rheumatic infection, and is attended by excessive pain in the joints as well as in the heart itself.

The pulmonary variety asserts itself more especially by dyspnœa and cough. Pneumonia is frequent, and the expectoration of bloody mucus the rule, showing pulmonary infarcts. The typhoidal class shows itself by the predominance of typhoid symptoms, owing to the septic conditions. The picture of typhoidal endocarditis so closely simulates that of typhoid fever at times as to make it almost impossible to discriminate between them. The cutaneous variety is recognized by the various cutaneous eruptions previously mentioned.

In the pyæmic variety we have the well-known symptoms of pyæmia (chills, sudden elevations and depressions of temperature, sweating, vomiting, collapse, etc.), pulse quick and frequently irregular, often attended with gastro-intestinal catarrh and icterus.

The symptoms, it will thus be seen, vary greatly according to the causation and the sequelæ. No definite rule can be laid down regarding the diagnosis of these cases, but the practitioner should always be on the alert for possible cardiac complications in all diseases of bacterial origin. On account of the valves being the most frequent seat of the trouble, the heart signs are usually plain; but, should it be confined to the mural endocardium, there may be no physical signs present. The usual signs found are increased area of dullness, frequently dislocation of the apex beat, and murmurs indicating a diseased valve, as well as symptoms pointing to circulatory disturbances. From the foregoing remarks it will be seen that it is necessary to discriminate between the different forms of endocarditis, as well as to determine the cause, inasmuch as the treatment is largely influenced thereby.

Ulcerative endocarditis is always a grave disease, the amount of danger depending largely upon the cause and the liability to embolism and septic infection. The after-effects of endocarditis depend upon the amount of damage to the endocardium, as well as the effects coming from emboli.

Where a person has once suffered from endocarditis, he is liable to renewed attacks. In this connection I wish to report an interesting case in point: On January 12, 1898, I was called to see Mrs. A. B., who was suffering from an attack of erysipelas of the right hand. This lady I had previously treated for chronic valvular affection. She complained of having been indisposed for about a week, having had indefinite pains, headache, backache, anorexia, and insomnia. She had not been confined to bed, but had slight dyspnœa, increased upon exertion, and some fever. Her other symptoms were attributed to the erysipelatous condition. Her family history is as follows: Father died with typhoid pneumonia at the age of fifty-two; he was sick three weeks, and succumbed to an attack of pulmonary hemorrhage. The mother died of old age at seventy-five. She has three brothers and three sisters living, and none dead. One sister has had pulmonary hemorrhage. She thinks all of them are somewhat affected with "heart disease." Her age is forty-three; habits good; always resided in the country; she is not a robust woman, but has never had any severe illness excepting diphtheria. She has had "weak spells" several years, but her attention was first attracted to a heart trouble in 1888, following an attack of chronic dysentery.

I first treated her for mitral lesion in 1893, and at intervals ever since. When first seen in above case her temperature was 102° F., pulse 95, respiration 22. The tongue was furred, there was tenderness in right hypochondriac region, some vomiting, slight pain in precordial region, and dyspnœa. The right hand presented in its dorsum, extending over middle finger, a red, shining patch, over which the skin was tense, and in which were itching and burning sensations. There were, also, a few small, isolated, hyperæmic patches over dorsum of the left hand and wrist, and upon forehead and face. Two days later the number and size of these patches had increased; the border was defined, and there were itching and burning sensations in them. The heart on first visit was slightly enlarged; there was a blowing, systolic murmur, heard loudest at the apex and transmitted to the left. The second visit showed the heart trouble increased, and harsh presystolic as well as systolic murmurs. There was increased dyspnœa, with cough, and slight expectoration of mucus tinged with blood, and pain in splenic and lumbar regions; spleen was palpable. Temperature 103.5° F.; pulse 110, weak and irregular; respiration 28. Examination of urine negative. On January 16th, temperature was slightly lower: 102° F. at 6 P. M. Dyspnœa had increased still more, pain more severe, and cough was troublesome. Heart findings remained about the same. The pulse was increased in velocity, but still weak and irregular.

From this on, with the exception of occasional sinking spells and increase of the macular eruption at times, the patient's condition progressed favorably. About ten days after visitations ceased I was summoned hastily to her bedside, and found patient with marked signs of cardiac failure and extreme dyspnœa, cough, and expectoration of a blood-tinged, frothy substance. Upon close examination the conditions of the left heart had improved, but slight signs of a right heart trouble were found. Upon seeing her two days later, all symptoms were improved. Since that time I have seen her as an office case, and the outlook is favorable.

The treatment of this case was wholly symptomatic. The inference to be drawn from it is that of an erysipelatous infection, followed by a lighting up of an acute endocardial inflammation at the site of the old disturbance. As a result of the process we had metastases. A few years ago, malignant and ulcerative endocarditis were classed as being one and the same; but to-day, with the increased knowledge of the origin of the trouble, we look upon endocarditis as differing in severity according to the nature of the infection.

LARYNGEAL TUBERCULOSIS.[1]

By J. J. JOHNSON, M. D., of Harrison, Ark.

TUBERCULOSIS is an infectious disease, essentially of a chronic nature, characterized by small nodular lesions or tubercles, the exciting cause of which is the tubercle bacillus discovered by Koch and made public by him before the Berlin Society in March, 1882. The presence of the bacilli in the cell (either leucocyte, epithelial, or connective tissue) excites a profuse cell proliferation, which is also accompanied by an excessive migration of leucocytes, obscuring the epithelial type of cells and massing themselves so rapidly as to prevent the formation of blood vessels. Degeneration and disintegration rapidly follow.

In laryngeal tuberculosis we have formed by this process ulcers rather than cavities, as in pulmonary phthisis. These ulcers are usually of two colors, a grayish white and a dingy yellow, which formerly could not be accounted for; but it is now conceded that the yellow is an advanced stage of the white, and that they constitute the local lesion of laryngeal tuberculosis.

The soft parts yield to the process first—; the mucous membrane and muscles of the larnyx, together with the vocal cords; finally the cartilaginous structure.

We first find interference with the voice, due to involvement of the arytenoid muscles, which control the vocal cords, producing the uncontrollable voice; and, later, the destructive process reaches the cords proper, and we have the husky or mixed whisper voice, and, finally, aphonation, or complete loss of voice.

The cartilaginous structure next being attacked, and particularly the epiglottis, we have interference with deglutition, particularly with the swallowing of liquids by allowing particles to pass into the larynx, producing exhausting coughs; the destructive process resulting in aphasia, if the unfortunate victim should live to see the process completed. The condi-

[1] Read before the Tri-County Medical Society.

tion is readily seen to be a most unfortunate one, nutrition being materially interfered with and comfort only to be sought.

The characteristic symptoms which are met with in pulmonary tuberculosis appear late in the disease; indeed, not until the process has spread to the lung tissue in a large number of cases. Hemorrhage rarely, if ever, occurs while the disease is confined to the larynx. The cough is more distressing, but the expectoration is less, than in pulmonary infection. Emaciation is slow and prolonged, as a rule. This form of tuberculosis was thought by many, and especially by the older authors, to be secondary to pulmonary phthisis; but this was most probably due to a lack of means and ability upon the part of the diagnostician, since it is now known to be a primary disease in a large number of cases, and that the pulmonary form often follows it.

The only positive means for early recognition of the disease is the microscope, and by it the discovery of the bacilli in the sputa. This removes all doubt.

Having perfected a diagnosis, the ship of science has not yet reached the shore.

Nature has wisely and kindly possessed these unfortunates with hope until the last. Their boat moves slowly and often with little interruption down the stream, to enter the great ocean from which none return. But something must be done; and while we cannot at present offer a positively favorable prognosis, I am persuaded that work is now in progress along the line which will ultimately solve the problem.

Much may be done to ameliorate the symptoms; and, excluding very advanced cases, some may even now be relieved. Tracheotomy has given relief in some cases, at least for a time. The curette and cautery have served good purposes. Testimonials favoring serum therapy are flattering, as a whole. The nuclein and nuclenic acid measures have their adherents. Tuberculin is valuable as a diagnostic measure. Antitoxin has given excellent results. Indeed, we deal extensively with means and measures theoretically, but what clinically? Face to face with the disease, treatment in the past has been almost altogether symptomatic, meeting as near as practicable the conditions as they succeed each other. Protect the vocal cords and epiglottis as long as possible by local applications. Relieve local irritation by anæsthetic sprays. Unfortunately, the physician in a large number, and truly in a majority, of these cases is not left to the exercise of his own judgment in the selection of remedies or in choosing the course which he might think proper for the case in hand. As a rule, I find the intelligent patient much more accessible than the one who marks the scale of reason further down. And along this line I may add that in this class of troubles is personified the King of Shadows, for who has not observed that it selects the brightly shining marks, the rarest flowers?

The skill of the physician is often taxed to its utmost limit to retain the confidence of his patient through the generally long and tedious course of the disease. To the oft-repeated question as to recovery, an evasive answer becomes monotonous; to promise much often results in disappointment; to compromise the truth is willful, but may be justifiable in some cases. To reveal the fact of the existence of the disease *early* is really the best procedure, and gives the patient an opportunity to choose a modern

course of treatment in *time;* and by this course we are in keeping with the oft-repeated but no less true saying that in this, as in other relations of life, "honesty is the best policy."

SEVERE NERVOUS SYMPTOMS RELIEVED BY TENOTOMY OF A RECTUS MUSCLE.

By JAMES MOORES BALL, M. D., of St. Louis,

Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons.

THE FOLLOWING case, which recently came under my observation, shows that the oculist often relieves nervous symptoms by operative measures.

Mrs. C. J. R——, of St. Louis, æt. 31, a spare, nervous woman, was referred to me by Dr. Carl Pesold. The date of patient's first visit was April 27, 1898. When three years old she had brain fever, and since that time the right eye has turned outward to a marked degree. There is no paralysis of the ocular muscles. Vision is as follows:

R. E.: Fingers counted at four feet.
L. E.: $\frac{15}{30}$.

The patient was placed under atropine, and the refraction was found to be:

R. E.: — 6.00 ⌒ — .75, axis 180; vision = $\frac{16}{40}$.
L. E.: + 1.00; vision = $\frac{16}{16}$.

The following correction was ordered for constant use:

R. E.: — 5.00 ⌒ — .75, axis 180°.
L. E.: + .50.

The patient states that for years she has had excruciating pain in the frontal region, also behind the right ear. Often she would be dizzy and would fall, especially just after getting out of a chair. She has taken much headache medicine, with only temporary benefit. At the first visit I advised tenotomy of the right external rectus, but she would not consent.

She returned June 13, 1898, willing to be operated. The right external rectus and accessory fibers were cut. The next day she stated that she felt better; and now, two weeks after the operation, the eyes are straight (exophoria 1° only), the pain and dizziness have been absent since operation was made, and she can use with comfort the glasses formerly prescribed.

THE URINE AS A DIAGNOSTIC FACTOR.[1]

By O. P. KERNODLE, M. D., of Sedalia, Mo.

IN RECENT YEARS this secretion has been studied with a marked degree of diligence, and many changes, valuable to the practitioner and student alike, have been made in urinalysis, and formulas, methods, and apparatus of inestimable value placed within the reach of all.

Volumes of literature lie before us, the result of most careful, studious, and scientific investigations, from Hippocrates down to the present time; and the changes that have taken place and recorded are of vital interest to the researcher along this line.

The secretions of the kidneys float the worn-out products of tissue metabolism, and eliminate from the body the waste matter, such as nitrogenous and other soluble products of tissue change.

The qualitative and quantitative examination of it is of great importance, to determine or approximate to a degree the estimated amount of disintegration going on in the system.

It is by careful examination of the urine, chemically and microscopically, that we are able to throw light upon obscure cases, that otherwise would remain obscure. The changes that take place within the body are unquestionably shown in the changes taking place or manifesting themselves through the urine, and, as a diagnostic feature, are of paramount importance.

There are marked changes taking place, and these changes are more manifest in diseases of certain organs than in others. Even in health, controlled by food and drinks, we find changes in color, odor, and specific gravity, while tissue retrogression is still more marked by the urine in disease.

We know there is a marked difference in the urine voided in the morning and that at night, and that the influence of work and age influence the changes. With this knowledge we are able to outline our investigations with some degree of accuracy as to symptomatic and prognostic significance of the changes, and attribute to them their influences, the processes and progress of diseased conditions.

Modern urinary analysis and urinary pathology, coupled with organic chemistry, has broadened the field of research, and we to-day can and do, with a positive assurance, diagnose many diseases with a definite and decided certainty. With the microscope we may define special diseases, and through the urine alone we may be able to detect complications arising which the test tubes and chemicals will not foreshadow, or give us but a slight hint. Hoffman and Ultzman say: "That it is possible to clearly

[1] Read before the Central District Medical Society, at Sedalia, Missouri, August 4, 1898.

define the ravages of any disease by a strictly scientific urinalysis, diagnose, and prognose with almost a certainty, where symptomatic prognosis will often find us at sea."

There are to the unaccustomed eye of the laity changes that mean more or less anxiety in the increased urates, and often the physician's attention is called to the sediment found in the urine; where the vessel is colored, a vast amount of concern is manifested by the patient. The physician is closely catechised, and the whys and wherefores are gone into, with often very little satisfaction to either the patient or physician. Yet, behind all this lies a meaning scientifically deep; the urates we know play a very important part in the animal economy. If these urates are retained in the system twenty-four hours, the whole eliminative pharmacopœia is called at once into action to restore their normal excretion.

We must not ignore this, nor pass over it lightly, for an increase, persistent increase is fruitful of evil results to our patient: it shows muscle waste in its highest activity, and is or may become as much a disease as albuminuria or glycosuria, producing pathological changes that will entail years of suffering on the victim. Professors Hoffman, August Ultzman, Roberts and Flint claim that the increase of urates is due to excessive animal diet, increased and persistent febrile action, diabetes, lung and heart disease, impeded diaphragmatic movement, leucæmia and uric acid diathesis; and Professor Witthaus claims that the urates are due to oxidization of albuminoids, and, therefore, are due to muscle waste and cell deterioration.

When we know that the specific gravity is about 1018, and we know the stated amount of salts of normal urine to be 825 grains of solid matter in twenty-four hours, and that it is slightly acid, its color is light straw or amber, its odor is of a stated characteristic, we have a base upon which we can work with definite precision (allowing for diet variation), if there be an abnormality either in excess or deficiency.

There can be no question as to the accuracy of a diagnosis in kidney disease after a careful urinalysis, and when it is made the physician is fortified in his work, and can progress satisfactorily and scientifically with the case.

Quite recently Professor Van Fleet has brought to light the fact that grave eye troubles have made themselves manifest through the kidneys, as proven by urinalysis, and that the microscopist has furnished *prima facie* evidence of existing changes in the urine indicative of certain forms of tissue disintegration, sympathetic of certain lesions, that are factors in diagnosis.

While we find the strongest evidence of cerebral disturbances manifesting themselves through these channels, we find others as great arising from other organs through the same avenues, and cannot question the correctness of the diagnosis when the urinalysist and microscopist have rendered their decision and results of investigation.

Professor Formad, of Philadelphia, who has recently come into prominence as a microscopist, and has distinguished himself with his elaborate researches along this line, has given these accepted, succinct rules laid down by him, and verified by Ultzman and others, which show how far along this road we have traveled in recent years. These rules are the

deductions of repeated urinalysis with microscopical researches, and are as follows:

"1. Sediment in the urine has no significance unless deposited within twenty-four hours.

"2. Albumen in the urine does not indicate kidney disease unless accompanied by tube-casts. The most fatal form of Bright's disease—contracted kidneys—has little or no albumen.

"3. Every white crystal in urine, regardless of shape, is a phosphite, except the oxalate of lime, which has its own peculiar form—urine alkaline.

"4. Every yellow crystal is uric acid if the urine is acid, or a urate if the urine is alkaline.

"5. Mucous casts, pus and epithelium signify disease of the bladder (cystitis) or of other parts of the urinary tract, as determined by variety of epithelium.

"6. The urine from females can often be differentiated from the urine of males by finding in it the tesselated epithelium of the vagina.

"7. Hyaline casts (narrow), blood and epithelial casts signify acute catarrhal nephritis. Much albumen.

"8. Broad hyaline casts and epithelial dark green granules and oil casts signify chronic catarrhal nephritis. At first, much albumen; later, less.

"9. Hyaline and pale granular casts, and little or no albumen, signify interstitial nephritis.

"10. Broader casts are worse than narrow casts, as far as diagnosis is concerned, for the former signify a chronic disease.

"11. The urine should be fresh for microscopical examination, as the micrococci will change hyaline casts into granular casts, or devour them entirely in a short time.

"12. Uric acid in the urine may, in Trommer's test for sugar, form a protoxide of copper, this often deceiving the examiner into the belief that he has discovered sugar. Thus, when urine shows only sugar, other methods of examination must be used—preferentially the lead test.

"13. The microscope gives us better ideas of the exact condition of affairs in the examination of the urine than in the various chemical tests."

Central District Medical Society.—The eighth annual meeting of Central District Medical Society was held at Sedalia, August 4, 1898, with Dr. F. Devilbliss in the chair; roll call, minutes of previous meeting read.

Visiting physicians were Drs. James Moores Ball, of St. Louis; Sweeny, of Chilhowee; W. H. Elliott, of Latham; M. S. Wright, of Fayette; and Dr. Murray, of Holden.

Election of officers for the ensuing year resulted as follows: President, Dr. J. L. Parish, of Pleasant Green; First Vice-President, Dr. A. H. Culp, of Otterville; Second Vice-President, Dr. S. H. Redman, of Tipton; Third Vice-President, Dr. H. B. Cole, of Sedalia; Secretary, Dr. O. P. Kernodle, of Sedalia; Treasurer, Dr. W. O. Dunlap, of Sedalia.

Several interesting papers were read and discussed.

CONDYLOMATA ACUMINATA.

By A. H. Ohmann-Dumesnil, St. Louis.

CONDYLOMATA ACUMINATA, or venerhal warts, are frequently seen about the genitalia of both males and females. They have also been denominated cauliflower growths, and the general opinion is that they are of venereal origin. Although this is true in the majority of cases, there exists a sufficient number due to different causes to call for a word of correction in this regard. It is for this reason that the name, venereal warts, should be abandoned, or an explanatory nomenclature established by which the name would give more definite and explicit knowledge of the matter in hand. The term condylomata acuminata also suffers from a disadvantage, as it is very apt to confuse those whose ideas on venereology are rather hazy. It is no uncommon error to look upon condylomata acuminata as syphilitic, and when the name is given it but serves to confirm the idea in many instances. Furthermore, the prevailing idea that they are always of venereal origin serves but to fortify this idea. It must not be forgotten that the more modern and correct ideas in venereology have not yet entirely gained that place to which they are justly entitled. We may find, even at this late day, many individuals who will contend that the chancroid is essentially syphilitic and merely a modification of the chancre. But there is some hope that this will eventually disappear, just as the idea which prevailed at one time that gonorrhœa was lues finally became consigned to well-merited oblivion. It is difficult to eradicate the teachings of men who were celebrated and able, and their teachings are clung to with a tenacity which is often worthy of a better cause. During the latter part of the present century investigation has been pursued with an analytic accuracy such that it has led the older members of the profession to look upon it as iconoclastic. Dicta are no longer accepted nor adopted unless they can bear the test of investigation and the critical examination of investigation. It is this apparent skepticism, and the consequent light of demonstration which it evokes which has brought medicine more nearly to that desired position of being a science than any other factor. It is these methods applied to investigation and to demonstration which have made the study of venereal diseases one of the foremost in the medical curriculum, where it will remain until methods are devised to prevent the acquirement and spread of those diseases which result from excess and debauchery.

The term condyloma acuminata is, perhaps, not as good a one as could be found, as it is in itself a negation of terms. As ordinarily understood, condyloma almost always implies a flat growth; so that when it

becomes acuminate, we are told that it is a pointed flat excrescence. On the other hand, the term venereal wart is not only misleading, so far as the origin of the trouble is concerned, but its form is not always verrucous. Cauliflower excrescence is a name applicable to certain forms only, whilst cock's-comb growth is also similarly restricted in application. The formation is essentially a papilloma, and one which is very vascular always, due to some irritative process. To embody these different characteristics in one name, such as irritative vascular papilloma, would confront us with an unwieldy name, which might, in addition, be open to adverse criticism. It would certainly be better to agree upon some short name and adopt it as a term expressive of the condition, and so different from others that there could be no possibility of a mistake. Aside from these purely theoretical considerations, the condition is one which possesses much interest, more especially from a therapeutic point of view, the rapid cure of the condition and the prevention of relapses not being always so simple a matter as we might be led to suppose from the off-hand manner in which it is disposed of by many authors. There are cases which sometimes arise that are, apparently, stubborn to all ordinary forms of treatment, and which call for radical measures; whereas, in other cases, the most simple means will bring about the most successful results. But this matter will be taken up later on, when the subject of treatment is considered.

There are various forms of condylomata acuminata, but they all possess some features in common. In the first place, they occur in the anogenital region or about the genitalia. Secondly, they have the faculty of growing rapidly and quite luxuriantly. In the third place, moisture is a necessary adjuvant to their growth. Finally, they are always attended by a marked odor which is foul, and whose intensity seems to be in direct proportion to the size of the growth. No reason has yet been given which can satisfactorily account for the fact that such different appearances are presented in different cases. In its simplest form we have the appearance presented which closely simulates flat warts or small, elevated warts, which arise from the prepuce or its mucous aspect, or from the glans at that portion which is usually covered by the prepuce. The growths are of the same color as the integument, and would easily pass for ordinary warts. A close examination, however, will show that they are sessile, and, if cut, will bleed profusely, more so than ordinary verrucæ. In the female these lesions are prone to show themselves on the internal surface of the labia majora, on the perineum, and about the verge of the anus.

A variety seen more frequently is the acuminate form, which usually begins in the form of very small growths. In the male they begin in the balans-preputial sulcus, and very rapidly acquire large proportions, becoming enormous in some instances. When they become very large they are of the cauliflower variety, and often are so large as to amount to a cupful. The pedicle in each case is rather small, but contains a blood vessel which supplies the growth and makes it very vascular, bleeding freely upon the slightest touch, almost. An example of rather well-developed condylomata acuminata in the male is shown in Figure 1. As can be plainly seen, there is a number, the best developed being at the lower part of the glans. The case was one which was of comparatively short duration, and it was unaccompanied by any particular pain, the cause of the patient applying

for treatment being the discharge from his urethra, which is well shown in the illustration by the drop which is manifest at the urethra. Another peculiarity may be noticed in the illustration. The growth appears white, which is due to the glairy, mucoid fluid which covers it and which seems to be secreted by it. This, in its turn, appears to promote its further

FIG. 1. Condylomata Acuminata in Male. (Acuminate Form.)

growth. As it grows the amount of secretion increases, and the entire process thus moves in a vicious circle. The continuence of the growth is easily understood when we remember that moisture is a *sine qua non*, not only to this increase in size, but to the very appearance of condylomata acuminata. It is to this peculiar fluid that the fetid odor is due, and this accounts for

the fact that it becomes more pronounced as the growth becomes larger and naturally presents more surface covered by the secretion.

In the female the condition is apt to be much more diffuse than in the male. This is due to the fact that there is presented a much greater extent of mucous surface which is susceptible. Another reason for the larger amount of growths in the female is that the liquid secreted originally causing the growth is not limited to the vulva and its immediate environments, but it finds its way to the anus, which in its turn becomes surrounded with warts. The growths are apt to be of a mixed variety in white women, as is well shown in Figure 2. In this case there existed acuminate lesions about the anus, and in the vulva one of the cauliflower variety. In the right crural fold there may be seen a rather large, somewhat flattened lesion, which has the appearance of being more or less lob-

FIG. 2. Condylomata Acuminata in Female. (Mixed Verrucous and Acuminate Form.)

ulated. This has not quite arrived to the stage of which the cauliflower excrescence is the type, but it is sufficiently well-marked to demonstrate that it is in the transition stage. Upon the right buttock may be seen a few small lesions of a sufficiently well-marked character. The dark shading about the thighs and in the internatal cleft evidences the moisture which is present and which has a very slight erosive action upon the integument. Locomotion was slightly impeded in the case shown, and this is an almost constant symptom in women, which is never manifested in men. The cause may be easily explained when we stop but a moment to consider two facts. In the female condylomata lata occurs about the vulva and anus; and, consequently, between the thighs. In locomotion the thighs come into close proximity and even rub one another. In both sexes there is a marked tenderness in these growths upon friction or pressure.

So that it is readily seen that this tenderness is not only continually elicited in women when they walk, but increases to a degree such as is never appreciated by men. Moreover, a man can protect the parts quite successfully, but a woman cannot. If she wears a cloth it only serves to heighten the pain, so that she is forced to the alternative of complete rest if she would avoid the constant misery and pain which walking entails. Another strong inducement to keep such a patient indoors is the foul smell which is present, and which becomes of so marked and fetid a character that passers-by in the street can recognize it.

It is a rather curious fact that the growths are much larger and more prominent in negroes than in whites. And the smell which accompanies them is simply awful. It would seem to be a characteristic of the negro organism that all pathological conditions are prone to take on intense forms.

FIG. 3. Condylomata Acuminata in Female. (Cauliflower Form.)

It is in these that tumors become largest, that malignant processes become most virulent, and that destructive processes are most extensive. This may be due, in large part, to the fact that they are more careless, or wait longer before seeking medical advice. Be this as it may, such cases are being continually met with, more especially in hospital practice. So it is in the case of condylomata acuminata. A very good representation of a large cauliflower growth of this trouble is shown in Figure 3. It will be seen that the external genitalia of the woman who was affected are entirely hidden. The mass extended, apparently, from the mons veneris to the anus, and was quite elevated. It may be seen that it consisted of several masses closely crowded together, although, as a matter of fact, they had comparatively small pedicles. Disseminated upon the left side, through the internatal cleft and between the tumor-like masses, were a num-

ber of smaller papillomata in a fair way of becoming larger. The reason they appeared upon the left side will become apparent when it is stated that the woman lay upon that side, thus giving an opportunity for the masses to produce moisture there and consequently favor the growth of new papillary excrescences. The case is not an exceptional one, so far as appearance is concerned. Any one who has had any experience in the venereal divisions of female hospitals will have seen such examples numbers of times. The patients themselves pay but little attention to their trouble until it attains such enormous dimensions as to be repulsive even to themselves. Many, however, are driven to public hospitals from the fact that the physician to whom they have applied for treatment seemed to be powerless, not only to cause the disappearance of these growths, but even to arrest their march.

The most common cause of condylomata acuminata in males is chronic gonorrhea or gleet. If the patient be careful to be cleanly they are not apt to show themselves; but if he permits the secretion to find its way under the prepuce, it causes the growth through its irritating effects. And it is not about the prepuce and glans alone that these growths are found in the male. I have had occasion to note them about the verge of the anus in pederasts. They presented the typical funnel-shaped podex, and acknowledged their indulgence in unnatural practices. The active participant had a chronic gonorrhœa, which, whilst it did not infect the rectum, sufficiently irritated the margin of its outlet to produce the growths. Gonorrhœa in its acute form, however, will also produce the growths. In women, on the other hand, it is not always gonorrhœa in its acute or chronic form which is always the cause of the lesions. A vaginal leucorrhœa will also give rise to them, and it is a prolific source of the trouble. However, it must be remembered that in the non-venereal forms of this trouble the growths are never as luxuriating as when due to gonorrhea. This is in itself a valuable indication pointing to the necessity of examining for the gonococcus, in order that there may be no mistake made in the etiology of the trouble.

So far as treatment is concerned, the cause should be attended to as well as the growths. Every effort should be made to cause the gonorrhœa, gleet, or leucorrhœa, to disappear. In any event, this part of the treatment should be thorough, or but little hope can be held out of the ultimate disappearance of the growths. Occasionally a simple drying powder, locally applied, is sufficient to cause the warts to dry up. A good form is campho-phenique powder, which is antiseptic and disinfectant as well. But cases occur not infrequently in which such a simple procedure will not succeed. In such a case a good method is to snip off the growths with scissors and cauterize their bases with chromic acid. The powder mentioned above may then be employed for a dressing. The utmost cleanliness must always be observed, and the non-affected parts must be kept dry. If this is not done there will be a new proliferation of the fungating mass. Some prefer using the stick nitrate of silver to cauterize the base, but it is not as efficient as chromic acid and requires repeated applications. Others, again, employ fuming nitric acid or acid nitrate of mercury, but the pain elicited is too intense, and the destructive effects are often quite marked. For these reasons chromic acid is much preferable. One precaution to observe in its use is to see to it that the cauterization is thorough. It need

not necessarily be deep, but it must cover the entire surface from which the condylomata arise. No hesitation need be manifested, for no scars will arise if the method be properly carried out.

A treatment which I have employed upon numerous occasions with perfect success is not only thorough but simple of execution. It is not particularly painful if carefully done. It consists in wiping dry the condylomata acuminata, taking care that they do not bleed, as a preliminary. The next step is to touch the growths with a twenty-five per cent. solution of pyrozone. The application, however, must be thorough. It must be applied until there is no longer the formation of bubbles; and one point to be particularly observed is not to touch the unaffected mucous membrane or skin, as, in that event, an intense pain of a transitory character is elicited. Whilst the application should be thorough, this does not necessarily imply that a large amount of the liquid is to be used. The remedy must be carefully handled, as it is destructive to clothing; and whilst it is very painful to the normal tissues, it does not destroy them nor produce scars. In the case of condylomata acuminata one good application is generally sufficient, and more than two have never been required in my experience. After the application of this remedy the growth shrivels up, then dries, and finally drops off in the course of a few days without leaving any evidence of its former presence or of the action of the remedy.

In the trouble under consideration the prognosis is always a good one, and results both appreciable and grateful to the patient can be readily obtained, providing that the proper treatment is given and the details scrupulously carried out. If these conditions are not faithfully adhered to, relapses will readily occur; and the ease with which such occur would seem to argue that there exists a certain predilection to the trouble in some individuals. This is further confirmed by the fact that others, both males and females, having the same genital affections, never exhibit condylomata acuminata, although what may be regarded as the essential cause has existed for long periods of time without improvement and without any particular care being given to cleanliness or keeping the parts dry.

When to Enucleate in Injuries of the Eye.—Foster (*Jour. Amer. Med. Asso.*, January 1, 1898), in a paper before the American Medical Association, said that his experience had shown that children under the age of puberty are more prone to sympathetic ophthalmia than at any other period of life. Superficial injuries to the eye, such as are produced by blows with the fist or a dull instrument, causing contusions and bruisings without solution of continuity of the ball itself, while frequently productive of serious or fatal results to vision, are in the rarest instances followed by sympathetic affections of the uninjured member. A wound in the ciliary region more often demands enucleation than in any other locality.

Operation is not to be delayed if, in the affected eye, there is excessive pain or indication of purulent inflammation; or if, in the uninjured eye, there is "shyness of light," corneal haziness, or discoloration of the iris. —*Brooklyn Medical Journal.*

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By Dr. Warren B. Outten, of Saint Louis.

[CONTINUED FROM THE JULY ISSUE.]

CHAPTER VI.

The Strange and Marvelous Difference Between Rags and Mentality.——The Still More Marvelous and True Story, Wherein a Mind Makes a Beggar; Showing the Wonderful Effects of a Soul Shocked With Joy Supreme.——The Story of Reven Pots, of Ill-Balanced and Vagaried Mind; Illustrating the First Touch of Degeneracy Upon the Will.——How a Lacking Judgment Makes Void the Holiest Uses of a Mind.——Why an Apparent Wealth of Mental Means Begets a Poverty in Lifely Results.——Brilliancy and Mental Means Not a Surety of Begetting Vital Results.——A Discussion by This Bombastesian Cohort on the Disharmony of a Soul.——The Interminate Line, or, as It Has Been Called, "The Borderland," Between Health and Degeneracy.——Nature, Not Learning, Makes the Man; Locality May Make the Degenerate an Effective Man.

RAGS, when worn by a person, teem with an infinity of little accidents, plaintive suggestions, lacerated solutions of continuity wrought by time and circumstance. Rags, when worn by a person, are ever a published defect, a moot fault, a languid query, and prophetic relic of better days. Rags trieth a man; but, still more trieth a man's friends. A cynic or a madman may court rags; but a sane man, never! 'Tis said that rank pride may be seen through rags; but the effects of humility and cold are seen better. Rags may flaunt in arrogance; but 'tis more often that they wilt in meekness. Yea, a rag is a born martyr, made for rueful fate. Nay, doubt it not, for it is a shining truth, that a rag is the worst persecuted, and most patient, thing ever created by man; for it is eternally persecuted, but never resents. Compelled to associate with the scum of creation, it yet ever doth its duty. Its abuse commences with its birth, and only ends with its grave; for it never gets rest until it is purified and changes its name. Once purified, it is oft clothed in alabastered sheets, and then, in darkest hues, abuses a peopled world.

Now, then, these thoughts were but a suggest, caused by the appearance of a ragged man in the waiting chamber, this very evening. Aye, he, forsooth, was ragiously ragged; for, in a flash, he brought to mind both wonder and contempt. His tall, well-proportioned frame made his rags shine in ruthful repellance. He moved not as a beggar, but with the confident, definite grace of the prosperous. He was unconsciously polite, and easily begot respect in consequence of it. But, gracious me! when he spoke, voluble, free, and in cultured way, it did, indeed, make plain the wondrous difference between rags and mind; for the wonder grew, how such a mind could possibly associate with such rags. In crisp, well-turned expressions he indicated his business, and said that between pride and his present condition the conflict had almost reached the point of starvation. He was too proud to beg, and had, in an honest way, endeavored to get work, but had utterly failed. Having heard of Doctor Theodorus,

and that the doctor was a broad-minded man, whose charity did not bear, in its bestowal, either humility or homily, he had come to him.

Said he: "Aye, sir, 'twas not only a pleasure, but a God-sent revelation that I did but hear this; for my informant was a beggar, and thus said: 'Why, this doctor is an odd one; who looked into my eyes and told me what I thought; then, like a stern magistrate, in severity, said: 'If I give thee alms wilt thou not squander it in drink, court vice, and award charity, which should be blest and not cursed, with debauch?' And ere I could answer, this doctor said: 'Nay, nay, my man! Take what I give thee freely; for words cannot change a man's nature. 'Tis useless talk; for when thou hast this money which I give thee, 'tis thine, and not mine; and I have not right to direct its use, nor to hurt thy feelings if thou dost beg alms. Alms, when given, and filled with unasked advice and threatened say, benefits neither the giver nor the beggar; for alms, thus given, oft makes that beggar a liar and a hypocrite, while it makes oft the giver but a coward and a fool. The giver is a coward, because he hurts the feelings of a fellow-creature, which he hath not right to do; a fool, because he knows that when he is out of sight the beggar will do with the gift but as he sees fit. For, oft it is, such talk makes a man worse than he was, and fills the giver with poor, vain conceit.' When thus I heard, I did but say: 'Here is a man of soul and purpose good. Perchance, there is feeling help for me. Hence, I came to barter aid; for I will surely repay.' "

Now, the more I saw of this man, the better pleased with him I became, and said: "Sir, I will do my best; and but think that aid will come, for Doctor Theodorus helps the worthy, and, with kindly pleasure, his gifts bestows."

"Sir," said he, "if God has made a soothing balm for souls,'tis when means empower man in charity. Nay,'twas mine, oft and oft again, thus to be; aye, e'en with wanton gifts my soul has been refreshed. Thus have I a ragged beggar met, whose face was set in business woe and haggard mien. His walk, clothes, face, and voice were tuned for profit, and welled in dire deceit. Into his hand a golden coin have I thrust in speculative glee. Gods! here's the test of that soul's infirmity. He sees the coin; he knows its worth; and e'en now doth thought do its lightning work. If a tricky soul, his face its deceitful purpose drops—aye, only an instant his eyes beam; then, effusive thanks; and in haste shambles off to gloat at my supposed mistake. I, a pound less! But another soul in truth does act. The gift has not tarnished me, but him. Anon, beggars are as man—both good and bad. Here's another beggar into whose palm I thrust a golden coin. He sees; and, with peering eyes and eager face, says: 'Didst thou mean it? 'Tis surely wrong—this coin! 'Tis surely thy mistake!' Now comes my fulsome chance. 'Zounds, zounds! What do you say? Did I understand you aright? Didst thou say, a mistake? Here, take its fellow, and make it doubly so!' And now, sir, didst thou ever see a soul shocked with joy? By my faith! I care not how dirty and begrimmed that face may be, joy transforms it into an enchanting, beatific thing. Its soul in joy so brightly glows, all else is lost to sight. Aye, such faces are not seen in life any too oft; and they seem to become, but when pained and stressed nature is eased. Nay, ragged and poor, as I am, I would not

have back those golden coins if it would cost me this memoried pleasure of a human face in joy supreme."

Now, step by step did this man my soul arouse. He courted thought; for teeming thought he returned. Aye, 'twas honest pleasure he gave; and I gave him honest confidence in return.

"Sir," said I, "thy generosity did thy soul good, but it did empty thy purse; and they say, 'He'll soon be a beggar that canna say na.' "

" 'They say,' " said he, "is chance's fool or wise man. 'Tis a threat to action, and a grumbled result. It does as much good as giving physic to the dead. 'They say,' is a born oracle; e'en like echo—only repeats—for it does not know. 'They say,' is an officious meddler, who courts respectability through a liar's wisdom. But the beggar, by my troth! doth beget my sympathy. Yea, fate hath made me see many; and true it is, many beggars are, indeed, God's most worthy objects of need. The willful, the viceful beggar needs not thy help; for he is a man of ways and means. But that poor soul whom infirmity claims, whose will is dead, is pity's slave; for his mind cannot help, and he becomes but a listless thing; and, like an automaton, walks in his miseried course, unable to think, unable to will—more helpless than a worm. Heavens! what a brain can suffer! Yea, beyond belief, how lifeless a man can live; and, still, but move. Aye, become a passive wreck in mind, a clinging frame in body. Between a body's infirmity and a soul's obtundity, 'tis a man's most woeful plight.

"Yes! thus in rags and woe he went,
A sad, weak man, whose soul was stunned;
'Twas by rude shocks of Life" events,
Of Hope bereft, by Fate benumbed!

'Tis true, each day dwarfed Life's survey
For him; one hated path he traced.
Or rain, or shine; or night or day,
But frowned Fate's grim, relentless face!

Nor Hope, nor Joy, nor Love could charm;
For dead, at last, his Soul to pain.
Despairing, palsied, naught can harm
This man's weak, tottering, stricken brain!

What though o'er Ocean's brink he peered,
Or gazed afar with staring eyes?
A sigh, a step, a splash is heard!
'Tis o'er. The wretched, painless dies!

"Aye, sir, charity in thought and act enriches any man. Nay, the boastful strong, the man of prospered way, becomes the braggart of advice; yea, he is the petty lord of circumstance. 'How, now? thou beggar! Be off with you! Earn thy means! Thou art a sloth, a fool, a dullard! Do as I have done, and thou needst not beg!' Yea, he is but a creature of God's will; he boasts of that which God gave him, and of that which he hath not power to make, or prevent. He is the creature of circumstance

as much as is thy torpid beggar. Aye, such boasters ignore their Maker, and assume His work as theirs. They are the Lucifers of a petty life—weak men, who should leave abuse untouched, and thank God that it is as well with them."

Aye, truly this man flowed and talked in thought. To me, he was a marked man, seemingly fit for any position; and when I shut my eyes and heard him talk, he was a wonder. But, when I viewed his rags along with his talk, he became a freak. For, surely, it was some weakness that must have brought him to rags.

"Sir, 'tis now the evening hour; and I will acquaint the doctor with thy request. I pray thee, but await, and I will return, and tell the result of my mission."

From thence I went and saw Doctor Theodorus. Perchance, it was my description of this ragged genius which moved Theodorus; for, when I was through with the vivid tale, Theodorus came.

THEODORUS.—Sir, I have heard thy appeal in terms of more than warmth. But, sir, how can possibility have lent her aid to place you in your present woeful plight—when I have been told that thou art a master of language, a wielder of expression, and an owner of sense? Pray, give me thy name!

"Reven Pots, most worthy sir. My present state is but an ordination of fate; since unwilling chance sent me here. Fate, in its disposition, has but thwarted effort; for I have tried both hands and brain, and, thus far, have they borne me but doubtful fruit; nay, in fact, no fruit at all, but well made suffering. Since I have been here I have doubted Providence; yet I do but believe that Providence surely has some purposive motive in my sad plight; but, as yet, its object to me is transcendentally mysterious, and utterly hidden. Nay, now, I am like chance: I seem to have no cause. Old Ovid said: 'There is scope for chance everywhere. Let your hook be hanging ready. In the eddies where you least expect it, there will be a fish.' My ready hook seems to bear but fated bait; and thus far hath not caught either chance, means, nor opportunity."

THEODORUS.—Nay, then, what has been thy occupation? It seems, surely, that, with thy sense, thou couldst obtain means by some employ.

REVEN POTS.—Aye, true, sir; but a mind is a man's master, and wields him for good or ill. As this mind bides in strength, so will it act its honest purpose. Thus far, my mind hath done its honest purpose. Yea, it is true, my rags have but thwarted all honorable pursuit. If I die, none other will I take. In my present state I do but live, a proud fool of rags—honest work, worthy and becoming; but menial service, never! Mine is a varied tale of an ever-active life; for, from manhood until now, my effort has not flagged. But fate has but made me glide, time and time again, from palace to hovel.

THEODORUS.—Nay, then, I trust not to hurt thy feelings; 'tis honest query. Perchance, intemperance has clogged thy progress? For, that man who carries too much drink is like Atlas of old, who carried the world. He, with drink, as Atlas with the world, carries just all he can, and is really unfit to carry aught else.

REVEN POTS.—Nay, drink has been not my bane, still less my ruler; nor have I been such patient bearer, like worthy old Atlas. But, I beg

thy pardon, my stomach bides with space! Its emptiness dulls my heart and swims my brain. I am fit neither for counsel nor for pure devotion. Pain may make some hearts golden; but, with me, it makes body lax, legs weak, and brain swim. Yea, my stomach dwells now as a memoried, not a working thing.

THEODORUS.—Nay, God forbid that I should make thee suffer! I cry your forgiveness! For thy wants shall receive immediate care; and when thou hast satisfied thy inner man, we will be well pleased to hear what thou call'st thy varied tale.

(Here directions were given for his care, and after the meal was finished he was reconducted to Theodorus and the Cohort.)

THEODORUS.—Sir, I trust that thou art pleased with our homely fare. And, if 'tis thy pleasure, my companions and I would be pleased to hear thy story.

REVEN POTS.—Most worthy sir and sirs, I thank you for your sympathy and good fare. Sympathy is worthy food for the soul; as it holds within it good-will and charity, humanity and mercy. Aye, it may mix with folly, but it betters wisdom. It has a language, known to all the world; and it needs no single tongue to tell its virtues. Nay, 'tis true, from the poor and miserable it begets a respect which leads to more than a passing thought; for it may become a powerful force if used by an adroit wielder. Nay, then, but this is not to the point. Even as a child I was old in aptness and comprehension—that was noted by all. Where my fellows blundered I understood; and my teachers ne'er had cause for complaint of unlearned lessons, but rather did fulsome praise too freely give. Yea, I was noted for my gift of speech; for it ever came free and unlabored; and then, as now, it did seem to well unbidden. Verse was but my second nature; rhythm seemed natural as breathing. My mind revelled in dreams, both day and night. Yea, ever came at will's desire, and in varied number. I did easy speak. For—

> Unfading visions thronged my sleepless mind,
> Of countless beings, scenes of changed design.
> For, in soul's depths dwell angels, bright arrayed,
> And loathsome fiends that hold Avernus' shade.

As a boy, I followed my own fancy; and was often chided as being willfully capricious. Yet, I was ever free to take advice. But still, as a thinking person, I would always determine for myself this advice's best action. My reason was not blind, and I acted as my conscience did prompt. Nay, when I did commit acts not deemed proper, my explanations were treated with contempt, as though they were naught. Now, faith, this belaboring did beget in me a wayward disposition, which I could not control; for thus am I made. Hence, I could not help giving vent to strong, violent, resentful passion. Heavens! why did I need punishment, when I was doing my soul's best wield? Why receive strong chastisement, when but reason would have done me better than my illy-proportioned berating? I might have been in error, perhaps, but why should I receive whelps, when kindly words and well-trained thought would have made me see the error of my ways far better than such brutal punishment?

Before I reached manhood I was an invalid, ever troubled with racking headaches, and at times with fainting-fits. Oft and oft again have I done things which memory ne'er made see. Nay, reason was not used, but only punishment. Aye, by my soul, I do but believe that, had it been pictured to me in true and proper light, of my woeful words and mad actions, I would have been e'en a just and reasoning soul. But, to me, it seemed as if I were but a miserable caprice to my infirmities—a poorly-appreciated, groping soul, who would do right if, by just and proper means, direction would come. At times, my excitement would rule me like tension steel; and then I would droop into misery's depths, without hope or desire. And then, oh! so eagerly, did I seek for change, e'en though this change were death. Nay, I do not complain; but still, in my inmost soul, do I but think I was but illy read.

All of this time, e'en amidst sickness, my mind seemed, in its fervor, to quicken learning. Whatever I essayed seemed borne in ease's mind; for my mind seemed to be as tremulous, mobile, and reflective as quicksilver. Now, this is not said in boastful way: but as a boy of ten years I essayed and made, in patience and with days and weeks of work, a printing press; and each leaden type I cut in shape with knife. In the village where I abode, neither printing press nor paper was then found. In youthful zeal did I issue, e'en full-fledged, my weekly paper. Perchance, 'twas to arouse my youthful bent; but sure is it that I did well, and was e'en fully paid. But ere a half-year had passed, to me this paper had become a tiresome thing. So I parted with it, without thought or trial. And e'en now, to me, doth this seem as but the first of that which, in my life, has happened time and time again; for I loved, ever, change!

I need not mention names, but sure it is that toward me shown a cruel and oppressive treatment, did but chill my soul. I but thought that kind appreciation never fell on me at home. I was accused of being of cruel instinct. No fault was so burdensome but that I was given blame. Thus was I treated, until, finally, I set my mind to leave. In my inmost soul, time and time again, I had dreamed of travel. I sighed for change; and thus I argued: that travel alone would remove me from the eternal, harrowing sorrow of my surroundings and thoughts.

So, unknown to all, and unpermissioned, I left. Hence I went, with but a few pounds in my pocket. I did cross the briny deep, and free America did reach. Once in that land, rest knew me not; for I but traveled from end to end, and from place to place; I sought quarters as were within my reach, and lent my service to such only as did but travel. Nay, void of means, have I not traveled through a continent? Yea, 'tis but true, I did but travel on foot, with a tribe of Indians, through an utterly wild land, for hundreds of hundreds of miles. And we were dependent upon our own resources for each daily meal, midst stringent clime, dire happenings, stressed and weary times. Aye, 'tis truth, for thus I say, those untutored creatures, whom the world calls savage and blood-thirsty children of the plain, have ever been most kind to me. Yea, in their wigwams have I partaken of their simple board, and been e'er welcome, without money or price. Yea, oft and oft again, has the wilderness been my couch, and the desert air my food. While thus, with these Indians, we did meet foot-worn travelers, who, with wearied faces but strong hearts, went in search of golden mines. With them I went. 'Tis soon told.

In mining ventures, means, by strangest chance, flew to me in a golden stream. It was then that I became the blind fool of impulse. For there did but come an o'erweening, mad desire to buy; for buy I would—it mattered not what, so I but bought. For, in my very deepest soul, delight would ripple and bubble, if I but bought. Yea, verily, I believe the wealth of Crœsus would have gone with my mad love for buying. Once in possession of a thing, pleasure left, only to come again with ability to buy. Not content with one thing, I did but dabble in many. Nay, I could picture fabulous realms of wealth, and exalted dreams of success, in ventures which were but plain to my thinking brain. Aye, like a shuttle-cock of fortune, I became the plaything of chance, the fool of venture, the egotist of accomplishment. Oft was I a gilded ass, only too soon to become a ragged pauper; until in crazed disgust, without means, derided and avoided by men whom I had helped, I did ship as a common sailor, only to meet with wreck. I did then bide upon an island until a vessel came; and in eagerness and heartsome hope, I did work my passage hither. To this land, without means, I came, but in buoyant hope, thinking 'twas the same good land from whence I started. Thou knowest the rest.

THEODORUS.—'Tis sad—thy story truly is; for it seems that fortune chides thee overmuch.

REVEN POTS.—Fortune, say you, sir? Aye, sir, 'tis misery's truth; and truth, to the miserable, rarely wears the mantle of comfort.

Aye, fortune is a sham, which turns to woe;
Yea, fortune is a sin, which to crime doth go;
Aye, fortune is a dream, which to delusions tend;
Yea, fortune is a craze—soul's ruin, reason's end;
Aye, fortune is a fiend, of kindly soul bereft;
Yea, fortune is fate, the last sad touch of death.

Patience, I pray thee, sir! But this is what fortune has seemed to me. Nay, I know not how to reason; and I do but blindly think. But, if I could return to the land from whence I came, I would, indeed, bide in contentment.

THEO CELSUS.—Sir, pardon me! But I may have ill understood thee to have said that "thou ever boughtest, but never sold." Can this be true? For 'tis said "buying and selling is but winning and losing." Now, then, if thou didst only buy, loss was, therefore, ever thine.

REVEN POTS.—Loss, sir, had no thought nor dread for me; nor could it tame my penchant for buying. Nay, sir, perhaps thou art blessed with an even mind; perhaps no stressed will did thwart thy soul; perhaps no mad desire e'er carried thee; perhaps no strong and welling force drove thy soul as it would. But thus was I beset: with one idea alone my soul did well, which I could not control. What cared I what he or thou might say; for all things else were dead before that mad desire to buy. Nay, I would have bought a pig in a poke, "an unlaid egg," or "a mare's nest," had they been for sale. 'Twas not the value which entranced; 'twas not the merit of the thing; but it seemed the process of buying, that gave me satisfaction.

TIUS BU.—If thou hadst not spent, it now would have been well with thee.

REVEN POTS.—"If," say you, sir? Why! dead the fool who has not wrestled with "if." And true it is, man gives you "if" more than he does aught else. And "if" I do but tell the truth, I have, in my time, but met with more than one man, who was what I may term an "if-anity." Aye, sir, "if" has the prospects of Golconda, but the poverty of Lazarus. It has the assumed power of Cæsar and Alexander combined. "If" is circumstance; occasion; crisis. It grants; it allows; it admits. 'Tis possibility; 'tis failure. Aye, besides, 'tis a brain's lazy relief; and, oft, 'tis honest effort. Inanity never had any sense; therefore, 'tis senseless. Insanity may be the wreck of powered intellect; therefore, 'tis madness. But "if-anity" has not the honesty of either, and may lead to both; hence, is neither senseless nor honest, but a vagary of the will.

THEODORUS.—Sir, I thank thee for this interview. I pray thee, step without. Means and help will be accorded thee. But ere thou goest, I will see thee anon. And I do but hope that fate may treat thee better.

(Then Reven Pots departed.)

THEO CELSUS.—Gods! this man is well armored in his rags; for robbers and hurricanes might assail him, and get but illy paid for their pains. Heavens! but his clothes doth elude solution; for nothing seems to hold nothing together. Nay, he is like evil; for he has wrecked himself. Besides, he seems poorer than poverty; for he has less even now than when he was born; for then some kind soul did have care for him; but now he has not one. Aye, man doth well in climax—the rarest, strangest, most perplexing paradox of God.

THEODORUS.—Most truly, he has rags. But, if remedy should come, he can well fix and change his rags. But would it stay thus? For his infirmity is not upon the surface, but deep within the convolutions of his brain. For ages it has been said, "the mind is the man;" for the mind's tone and strength is but the sure making of its owner in failure or success. Tone makes music; and, in man, the tone of his mind surely begets the harmony of action and result.

And now, here, anon, this but begins our first and well-arranged study of degeneracy, wherein we have the organization of a soul welling in discrepancies, so that the entire intellect of the individual is more or less involved. And this comes only from degeneracy, not from inherited insanity.

This, then, is that period in which degeneracy first shows its strong and powered self in dissolving unity of a mind. For, it has been stated, that degeneracy is that wherein the germ of man is involved, from its first conception to its complete form as man. Thus, we find, that in the formative process of a degenerative—that is, that in his growth and development—it does at no time come from undesigned happenings of mental life, but from the imperfections of a germ of such intensity as to involve the entire race of the individual; and that there is indicated, both in bodily and in mental organization of this being, certain stigmata, brands, or marks, manifestly the effects of degeneracy. This condition is the middle line, wherein it is hard to tell the end of health from the beginning of disease. They are, thence, on the borderland of insanity, showing these individuals as possessing excesses in their soul's composition, and an assemblage of unequal deficiencies in their intellect from infancy. They are precocious; and with their precociousness comes a capriciousness—a wayward disposi-

tion—in which they become the victims of violent or convulsive passion, and are generally ill-balanced and erratic in character. They are, for the most part, troubled with various chronic nerve troubles. And they are the beings whose imagination is restless, wayward, irrepressible, and exalted (in almost every element). They have rare gifts of speech; are gifted even in arts and poetry; overflowing with emotionalism; having more or less moral obtundity, and always lacking in good judgment. Intellectually they may be superior beings; but, all in all, the entire intellectuality of the individual is involved, which creates a discordant character, an ill-balanced mentality, seemingly utterly inefficient for accomplishment. Discords in the mind make those between intellect and intellect's action. Yea, 'tis to me marvel wonder; for man's brain, to our limited knowledge, is the highest, most expansive, most improvable, and most wonderfully accumulative element created by God. Man's brain contains a history of histories —life's stored tablets of myriads upon myriads of ages; a wondrous, varied record, holding a teeming tale of innumerable ancestors; a register of actions, in century upon century, in man's wonderful growth.

But, I beg thy pardon! I digress. A mind may have the brilliancy of genius, and be intellectually bright in many phases, yet still defective in its best mental power. For it may lose its purpose and directness. Its judgment may prove but an uncertain, erring force.

Harmony is that stable power which wields intellect to best action and perfect result; while discord robs a mind throbbing in richness of means, by begetting inefficient action. And poor judgment sways this mind in blind fancy. Meager, impoverished result must follow.

Now, then, let us but ponder. This man, in his very history, has a discordant soul. His mind, since the day of his birth, has been strong; yet it hath not efficient tone. Although not markedly eccentric, he is still peculiarly original; but, in effect, as weak as any fool. 'Tis evident, 'tis true, that he has a brilliant mind; but, still better do I know that he is not of good, sound, common sense. For, while he may have intelligence, he yet is void of that guiding power which we know to be essential, and called good judgment. Doubt it not; for it is a truth, that no one would call him "crazy;" yet all sane men would call him "ill-balanced." To me it is a certainty, for I do honestly believe that he is just as incompetent to fight successfully the battle of life as is the helpless lunatic. While dire result may not come at once, yet inefficiency is ever manifest. For he has but shown that with him every effort becomes but aborted effect. 'Tis indeed instructive, and yet, withal, strange! His imagination, at times, is like a hurricane; whose wildness lays in distorted waste the brain's realm. Aye, pray thee, if thou didst but notice, that he is susceptible to mental pain more than to mental pleasure; while, unlike a woman, he bears this pain but poorly. His invention is not void of labor; but it ever reeks of poor judgment. Yea, it is apparent, even to a dullard, that speech with such one is a ruling passion, his soul's strongest action, his mind's constantly sought-for, and best relief. His words are as flowers; though they last not. Expression to him is as natural as life. Now, then, while experience brings judgment to all common-sense men, it seems to stun this man's judgment; and more oft doth bring tirade, sharp grumbling in flowery strains, and sore complaint; for fault is ever deemed as

manly on his part. 'Tis sad, but true, his morality is like his speech—flowered on the surface; which serves but as a vent for his pent-up feelings. Aye, he is a contradiction. He has continuity; but his continuity never verges upon effective, well-turned use. For change is his eternal bane, and ever courts his pain. And neither time, patience, nor test, possess charm for him. His intellect, luxurious, sparkles; but still produces naught but effervescence. It pleases you and me; but for him ne'er takes healthy shape. Thou hast seen, and thou hast felt, that his intellect hath action—splendid action; but whose intensity, alas! soon droops to indirect purpose. Nay, there need be no doubt, since proof is plain. He has superior quality; but, sadly so, has not power to deport himself in best, most rational way. He may be brilliant in theory; but is, notwithstanding, a fool in practice. Yea, indeed, he is but a mental contradiction; for he has, mentally, a power seemingly strong enough to overcome all obstacles, but it stops at the verge of accomplishment—even at the exit of his skull. The mind's means seem but wasted in their arraignment and attempted use; and paucities result, engrafted on a poor and ill-judged product. Yea, with such an intellect as he possesses, of breadth and imagination, he would naturally work at the shrine, at the noble, the grand and the beautiful; but mental palsy begets only the skeleton of noble action. This ill-balanced man now is harmless. He is an interesting, pleasant, and amusing mental paradox. Aye, he is a theorist and a dreamer as well; while, even now, in earthly poverty, he attains his highest bliss by living in the luxury of a golden Utopia. Yea, it is God's truth, and withal not strange; for a world might wonder at this man's failure. For mental proofs seem evident, although a closer association with him would only too soon show this man's incapacity and morbid tendency. Why? Every step in his converse, in his story, shows lack of mental equipoise; that his mind is but a tottering mass, rich in emotional sensibility; for he wells more in spontaneity than in deep reflection. His mind seems void of all intent, from the mind's cross purpose. Inheritably rich in intellect, inheritably poor in judgment! Aye, he is a living anomaly, and a strange one, which query doth but partly solve; for his mind doth turn ability to inability, stability to instability, resolution to irresolution. Nay, then, may I not predict; for this man's emotions are but his tyrant,which, at times, may make him the picture of apathy, or the subject of intense excitement, to be followed only too soon by benumbing torpor. Now, blind passion may assume her sway and, in action, be energy's own, still violently blind. Now, then, from its dire stress, burdensome cries of despair assail the air, if but a shadow cross his path. In short, if such may be, he is naught else than a brilliant sane lunatic, whose mouth and mind keep him out of asylum. Yet, for all this, his mind will ruin him as surely as if he were strongly crazed. This is a soul's inherited destruction. 'Tis but the picture of the impotent, ill-balanced man. Nay, it is true, his mental condition is but the play and index of surroundings and occasion which, if healthy, it could easily resist. But, then, these defects are inherent; and for these is man no more responsible than for his birth. For, to me, it doth seem he is the unconscious and unwilling buffet of circumstances, but through defects inherited. A fated martyr of poor development!

THEO CELSUS.—Nay, thou hast, indeed, pictured folly. Aye, to me,

it is more than strange—the by-play and wondered acumen evinced by proverb. Now, I pray thee, follow me. See whether I can but picture thy ill-balanced man in the proverbs of folly. 'Tis said, "a man's folly is his worst foe;" so, true it is in this ill-balanced man. Aye, have I not heard, time and time again, that "folly and learning oft dwell together"? 'Tis so, as in thy discordant man. Nay, too, "folly is the poverty of the mind;" and the ill-balanced man of whom you speak seems but the poorest of God's creatures. Again, "folly will, in time, starve its owner;" so will thy man but starve, even with his wealth of language. "Folly is an incurable malady;" just as in thy man, for he is but incurable. Nay, "folly fishes in the air, and hunts upon the sea;" so does thy man; for though he lives in a golden Utopia, yet has he not of bread to eat. Again, "folly strives at the impossible, and gets nothing for its pains;" whilst thy unbalanced man has a seeming wealth of means, and only gets poverty's result. Aye, many things are named by terms which better mean e'en other things. A well-toned mind is man's best and most comfortable possession; for, in my vagary, it doth seem that this mind of ours is almost like Samson; for while it may not slay with the jaw-bone of an ass, it may yet freely kill with an ass' folly.

HEINE LANIUS.—Nay, I do but aver that thou canst not separate fools from folly, for both are innate and incurable. Now, I have heard that "learned fools are the greatest of all fools;" but it seems that the proverb but means that the ill-balanced mind acts as only a fool, and ever hunts for misfortune. So of madness. I do but remember that one has said, "if madness were pain, you would have outcries in every house." True, it may be that insanity and sanity are separated but by unknown lines; yet 'tis natural, that which thou canst not see, still truly feel, is always full of speculation.

PARA BLAR.—Aye, the unknown forms the great bulk of life, and thus lends energy to effort. And true it is, that we but strike the unknown when we come to mental force; for this is age's ponderous query, and even now begets frail solution, a full brain, and early weariness.

Now, what has been said ere this is full of thought, and doth make consider, full of wondered query. Change marks every element of man's physical and mental growth. Mind unceasingly receives and stores pictures of a past, a fleeting present, and a visioned future. It groups, arranges, and assimilates for use; and still doth hold what heredity hath given it. To me, our virtues and vices seem, indeed, inherited, which circumstance and occasion may mould to varied action. What may be deemed a virtue by the heathen, may be, perhaps, an intolerable vice among the civilized and cultured. To me, it seems but truth what Goethe said, that "our virtues and our vices spring from one root." But surely 'twas but celestial nonsense to have said that "virtue and vice, wisdom and folly are not hereditary." Why need we doubt this, when from our ancestors came our brains, and from our brains our virtues and our vices? I may be wrong; but the origin of virtue and of vice is never purely modern. But just as truly may our virtues and our vices seem acquired, which ancient, inherited foundation doth make possible. Vigor in man goes not always with the best mental period; for oft we find that when wisdom is strongest, learning deepest, experience greatest and most strongly instructive, man is

deficient in physical vigor. Vigor—physical vigor—is the stamp of procreation; and nature, it would appear, favors the begetting of physical vigor rather than the propagation of broadly summed-up, efficient knowledge in the individual. The individual should not be estimated in comparison with the great mass of men. Procreation comes with vigor; and vigor rules the world. Yea, procreation is the abiding vigor of our sphere.

THEO CELSUS.—Aye, 'tis old; for oft have I heard that the world would perish were all men learned. For, a handful of good life is better than seven bushels of good learning. Nay, the world, to be a world, must contain the world's possessions; for the world is but the earth with its inhabitants—the sum of human affairs and interests. And, truly, the learned man is but a very small item compared with the rest.

THEODORUS.—And now, worthy friends, we have indeed been vouchsafed profit by the study of a not infrequent mental infirmity—the fault of a soul's organization. For, accident did not mar this man's mind—it was inherited. Hence, his life's accidents have but accentuated, not caused it. This mind is but the by-play of accumulated action on the part of those who have preceded him. Hence, have charity toward this poor man's faults; for, through heredity, his ability lives better in his skull than in the realm of life's effective action. Here endeth this dissert.

Anon, it seemeth that ready believers are sorry reasoners. Yea, verily, just as true, that he who doth not believe at all hath no need for reason. Aye, indeed it may be true, that my brilliant genius, Reven Pots, is touched with a weak, needy mind. Still, think as I may, it yet recurs that, perchance, he was a coincidence more than an established fact. Surely, he was impressively brilliant—'twas plain even to the *quidnunc* bombasts; for thus was I accosted after this meeting, when Vegge Go said: "I pray thee, Mens, didst thou not understand that this ragged man was but a crazed fool?"

"Nay, sir," said I to Vegge Go, "thou art severe in thy say; for he is but an ill-balanced man, of whom 'tis claimed that he is on the borderland, and of the higher order of degenerates."

"Gracious goodness!" said Vegge Go, "if fool he be, where dost thou find thy man of sense? He talketh like a book and looketh like a beggar."

"True," said Theo Celsus, who had joined us. "They are oft inflated talkers, whose misguided judgment may lead them into the realms of genius, only to lapse into bombast, pretense, and mediocrity. They touch the edge of extremes, and are ne'er content to live in peace with good sense and effective result—brilliant grubs, gaudy butterflies, stimulated by a present to be ruined in a future; for accomplishment doth wither in their wake. Yea, indeed, they belong to the higher order of degenerates, and are not the crazed subjects of delusion. Truly, this ragged man is but the type of the ill-balanced man mentioned by Morel, Magnam and Regis. Yea, in verity, he's neither utterly weak nor great, as he is plainly a degenerate; he's neither utterly mean nor grand, for he bides on the borderland."

"Borderland, sayest thou?" said Vegge Go. "Heavens! it must be a rare country, to make such fools! Nay, nay, my friend Celsus, he doth seem to me to be more than a useless nothing."

"Granted," said Celsus; "he yet remaineth an uncertain something, from want of balance. I pray thee, note such men as this ragged man may be—so brilliant in many ways as to almost dazzle; anon, so weak as to be more than asses, more than fools."

"Perchance, thou art satisfied that this is so, but not I," said Vegge Go. "Gods! there be many borderlanders in this world; for all men are on the borderland—weak and strong by turns."

"'Tis plain," said Tius Bu, "that I know not fool from wise man; for this ragged man, to me, was more than pert and smart. Yea, then, I worry not; for have I not learned that 'tis best to never trouble trouble till trouble troubles you? Yea, I worry not about thy borderland ragged man."

"Humph!" said Yong Us, "thou art right, Tius. Smart the man that telleth the difference between this ragged man and a wise man. Yea, in my addled thought, I did but think that 'twas only fools who were dull."

"Gods!" said Blong Bom, "I, too, am sadly turned. To me it hath ever been that fools were more oft dullards than brilliants. Yea, if this ragged man is fool, then all men are fools."

"Nay, then, upon my soul, thou art all right," said Celsus—"yea, all, each and every one, from Go to Us, from Bom to Bu—for, true it must ever be, that no fool ever blunders, though all wise men can, will, and may. Truly, a fool thinks that nothing is right that's not to his liking. For that matter, tis much the same with most men. Opinion turns a soul as 'tis made—thus, opinion is always right in its own eyes."

"Yea," dryly said Vegge Go, "blind the fool that will not see with his own eyes; but truer still it yet remaineth, that 'tis only the fool who can see right in folly's kingdom; for there all sense is folly, and borderlanders do not thrive."

"By my faith! 'tis well said," murmured Celsus. "Thou hast hit the bull's-eye. The wise are fools in folly's kingdom; but the fool is a fool where'er he bides."

With this the bombasts besought their own company. As they went their way Theo Celsus said: "He that takes the eel of science by the tail, would learn better by talking to a fool. The best book-learned are oft the weaklings and witlings of useful, effective life. Verily, 'twas well said: 'What tutor shall we find for a child sixty years old?' What Vegge Go does not learn, Tius Bu never knew. Yea, truly, 'tis a sad tutor that knoweth not his pupil's soul. The unwisely taught were better untaught. Mind and muscle combined, maketh broadest function; mind or muscle taught alone, make their separate kind. Mind taught, muscle blind; muscle taught, lax in mind. Truly, 'tis oft we see intemperate use thwart lifely purpose. Nature best interpreted, gets best and highest result.

"Theo was studious, Theo learned;
Jim was wild, and learning spurned:
Theo early wise, in study skilled;

Jim wise in play, brain unfilled:
Theo was a pride, a joy;
Jim was a muscled, romping boy.
Theo studied both night and day;
Jim rarely studied, loved to play.
Theo, by study, made childhood aged;
Jim, by exercise, healthful growth gauged.
Theo early knew his depth of soul;
Jim, not 'til trial combat told.
Theo's studies made a learned man;
Jim's vigored self blossomed into plan.
Theo, victim of study, unnaturally trained;
Jim a natural growth unstrained.
Theo, product of an unwise course;
Jim, product of unguided, natural force.
Theo, mind grown, body immatured;
Jim, muscle trained, brain unseared.
Theo sapped by forceful mental plan;
Jim receptive mould, unartificed by man.
Nature knows nature makes life's best fruit;
Man unwisely plans, result: the proof.
Nature interpreted leads to effective plan;
Nature, not learning, makes the man."

"True, sir," said I, "as thou hast said, we cannot get more than there is out of an empty mind. A thousand tutors cannot get strong mind in a mindless pupil."

Aye, truly, to me, this study concerning borderland degenerates did but grow upon me. 'Twas novel and unduly strange, for many times did the vagaried character of Reven Pots come to mind.

How strange are life's happenings. 'Twas a long period after Reven Pots' advent amongst us that rare and kindly chance did unfold a strange and true story. Thus, from what I heard and read, it was revealed that Reven Pots did manage to get where golden mines were rife. Now, fortune again became his, and in such plenteous stream as to make him very rich. Yea,'tis true, that with these riches came much appreciation; for every defect of his character was gilded o'er. High positions were ever at command, and a high counselor he became in that land. His penchant for buying was met by that country's strange ways; for it appeared that his country was under spell of dash and errant enterprise. With great riches Reven Pots' mistakes were not shown, and seemed not to bring ruin. Aye, better still: any errant action he had was, by his riches, turned into the ways of genius; for his actions practiced when poor would have made him more than fool; but, when rich, they made him a bold, progressive man. 'Tis plain that the rich can hide many defects by golden glamor. Anon, 'tis not impossible that degenerate surroundings may fit and make a degenerate borderlander into effective man. Nay, to me, it seemeth possible that this century's degenerate might be another century's genius. Nay, then, 'tis but natural to think that borderland degenerates are effective possibilities, as well as paupered facts. Yea,

verily, what then; doth not locality oft make man as well as unmake? Aye, upon my soul! 'tis just to think that, should kindly fate rightly place each and every man, that this world would, indeed, be a brainful world. Then, indeed, many who are ragged beggars now would bloom into effective and valued souls.

Aye, indeed, 'tis reason to think that locality becomes nature's strongest aid in the make-up of man. Had Cæsar bided in polar ice, he would have been a real seal-stabbing Esquimau. Had Nero thus have been placed, hunger, fat, and cold would have made him a harmless thing. Nay, then, in my ponder here cometh the thought: how many men in this world know the possibilities of their souls? To me it seemeth that, after all that can or may be said, that man is naught else than a God-placed creature. Truly, many are born with deep-hidden and ponderous possibilities in their brain. Fate keeps them there 'til time, surroundings, and circumstance ripens them into effect or stills, undeveloped, into death.

[TO BE CONTINUED.]

THE THERAPEUTIC RANGE OF LACTOPHENIN.[1]

By Dr. B. LAQUER, of Wiesbaden.

MOST of the medicinal agents which an active, almost too active, chemical industry has donated to the medical profession during the past decade have experienced three stages before being permanently added to our materia medica:

First.—The era of extravagant enthusiasm, viz., a specific for some disease, free of all side-effects, never causing collapse, etc.

Second.—The period of depreciating and condemning criticism, the exact extreme of *first*.

Third.—The diagonal or neutralizing judgment, giving the drug its dues without ascribing to it everything which, *post hoc ergo propter hoc*, may occur during a hasty trial.

This new drug, lactophenin, has passed through period *first*, and is now in the *second* era. These lines are written in order to briefly outline the true and permanent value of lactophenin, and to inaugurate the *third* period, with several pertinent publications of recent date specially in view.

Now, lactophenin is, of course, no specific for abdominal typhoid (enteric fever), but, so far as antipyretics are intelligible in this affection, lactophenin undoubtedly holds first place among the available antipyretics. It exerts a pronounced influence on the typhoid state, calms the sensorium, ameliorates the symptoms to this extent, and aborts severe

[1] Translated from *Allg. Medicin. Central-Zeitung*, 1896, No. 32.

nervous manifestations. Furthermore, it is taken readily, does not cause nausea, and is well tolerated.

Lactophenin is, likewise, a very useful and valuable antipyretic in all other typical and in less precise infectious diseases—as scarlet fever, measles, especially influenza, feverish bronchial affections, and pneumonia in children.

In influenza, in my experience, it had a specially favorable effect on the lancinating pains in the back and sides.

In articular rheumatism lactophenin is, at least, as effective as antipyrin or phenacetin, while it has special influence in such cases where salicylate of sodium either fails of effect or where it is not tolerated.[1]

In neuralgias of the peripheral nerves, lumbago, migraine, and in mild insomnia, I have also used lactophenin with satisfaction, and almost without failures.

I wish to emphasize that I never commence with one-gramme doses, but always with 0.5 (7½ grains), or with 0.4 for weak patients, and 0.05 to 0.1 for children. Never administer the dose on an empty stomach, because then the effect is intensified. Never exceed two to three grammes total per day, and always increase the dosage from the initial minimum very gradually. By such methods I have always avoided untoward side-effects, of which lactophenin cannot be entirely free, but of which it certainly causes no more than antipyrin, acetanilid, etc. The unfavorable reports of H. Strauss (*Therap. Monatsh.*, 1895, No. 9) and Wenzel[2] (*Centralblatt f. innere Medic.*, No. 6) are due to a lack of such caution in administering the drug. Strauss ordered excessively large doses, and at too great intervals (36.0, 56.0, and 84.0 total dosage); Wenzel gave fourteen grammes in the course of fourteen days to a degenerate morphine fiend, whose digestion was weakened by the continuous separation of morphine in the stomach. (See Hitzig's conclusions, Berlin: *Klin. Wochenschrift*, 1892, No. 49.) The reported icterus, the genesis of which is not at all clear to me, is not due to the drug, but is attributable entirely to the large doses administered where the digestion was so weakened and impaired.

In conclusion, and this is the résumé of my brief therapeutic note, lactophenin is positively to be recommended as an anti-thermic, as anti-nervine, and as analgesic; it is uniformly equal to antipyrin, acetanilid, phenacetin, etc., and often superior, if ordered with due caution and regard for individual conditions.

In the choice of antipyretics I fully coincide with the concluding words of Professor Kast, of Breslau, during the debate on antipyresis at this year's meeting of the Congress für innere Medicin: "In treating fevers, individualize strictly, and act the true healer by nature in the full sense of the words; *i. e.*, antipyretics at the right time, in the right dosage, and not longer than necessary."

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[1] See report of Prof. K. Gerhardt, read before the meeting of the Verein fuer innere Medicin, April 11, 1895.

[2] The statements of F. Koebl, in *Wien. Medic. Presse*, 1895, No. 42, are too vague to deserve attention in considering a possible toxic effect.

COMPLICATIONS TO THE STOMACH THE RESULT OF DISEASES OF THE TEETH AND MOUTH.

By W. F. A. SCHULTZ, D. M. D., M. D., of St. Louis,
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COMPARATIVELY rare are the monographs on this subject; probably because here are but few that take up this way of thinking, possibly on account of not being versed in the two sciences implicated. In order to entertain a thought there must be food to relish. The same metaphor can be said to exist in this connection. An object that will illumine dark labyrinths is worth the beacon of respect.

The complications from diseases of the mouth and teeth are many, and are overlooked by the medical practitioners in myriads of cases. This last argument is plain. The medical colleges of the world do not teach dental pathology, so this will construe their gross negligence in not being able to detect dental diseases and their detrimental and even fatal complications and sequelæ to the human organism.

The author does not guess wildly in saying that the majority of diseases of the stomach have sprung from existing or pre-existing maladies of the mouth and dental tissue. By this assertion the writer has led himself into an intrinsic place, and the only short way out is to point to the arguments, and sum up the facts that have arisen by keen observation and much concentration on his part. To the reader this may appear as a mere postulation, but before this theme is finished we hope the torch will be lit and the gloomy and misapprehendable allegation can be seen by clear vision. We do not intend to say that tumors, strictures of the œsophagus, and ulceration, and the like have these common causes. But those of inflammatory nature with their results, and often the neuroses that attack patients of this temperament.

We may as well start to explain and marvel by taking the teeth first and sort out their diseases. It has been written by early authors that affections of the stomach cause sores in the mouth and teeth to decay. This is probably and possibly true; but there must be a disease of the stomach first, and this disease was doubtless the result of a malady of the mouth; and if not, the result of disease of the dental tissue or decay. Or—if allowed to repeat—they took the cause for the result, though it is plain to understand how gastritis can produce decay of teeth and sores in the oral cavity. For an instance: during acute or chronic gastritis one symptom is eructation of gas and at times trivial contents of the stomach which may have in its ingredient hydrochloric or acetic acids, and these coming in contact with the teeth means fatality to the tooth tissue, and would naturally cause

also ulcers in the mouth. Going back to the goal of the teeth again, one general symptom is pain—toothache of the laity. By naming it so we conceive it is a symptom, and therefore has a pathology. This symptom is terrible and plays havoc in our discourse as well to the stomach. Where this symptom is present, there is always disease. It may be pericementitis, pulpitis, superficial or deep decay of the teeth, etc.

In pericementitis, which means inflammation of the membrane surrounding the roots of the teeth, this symptom is pre-eminent, and in the acute form of this inflammation its character is so excruciating that nothing less than death would feel happier. The patient suffers long or short, which depends on the form and how soon resolution can be brought about. But, while the patient is suffering severely, food is objectionable, though hunger craves at every nerve. If foodstuff is introduced or taken into the mouth, the first occlusion of the teeth then all is upset, for the patient cannot regulate the morsel so as not to disturb the sick tooth, for it is elongated and will always touch its occluding fellow before all others; the natural consequence, the patient will gulp that mouthful without mastication, and all others that follow. Even drink is taken sparingly, and this, too, is nearly always attended by exacerbation, as to swallow the jaws are brought together. With this there is the shattering of the nervous system, the result of pain, hunger, thirst, and disturbance of rest. This, of course, is the acute variety, and cannot be made to amend sooner than a few days, and several days longer to heal, with all prognosis to make it liable to recur; possibly never so severe, but nearly always to cause inflammation of the pulp—styled pulpitis—with very like symptoms as the preceding malady (and it produces death to its pulp, probably, in every severe case). So, then, we have had injection into the stomach for a longer or shorter time of unmasticated, unsalivated foodstuff, with the secretions all altered by the tremendous nervous shattering. What less could be expected than a chronic trouble, if not acute gastritis, from this trial, as the organs that are overloaded by irritants receive no share of the treatment and sympathy? The chronic pericementitis is less worse in symptoms, and acts less to derange the functions; but by this disorder we get the subtle, creeping chronic inflammation. In eating a meal a mouthful is suddenly swallowed unmasticated, as the person struck the tooth a little too hard, and nature cried out, "it hurts," and down goes the food without further mastication.

This is but a crude sketch, and a very long time has been consumed in delivering it; though we trust it was all but superfluous and will act to illumine the coming remarks. We can, likely, deal with both superficial and deep decay, where pain is the symptom. Pain here may be continuous or recurrent by any application to the tooth or seat of caries. When it is continuous then by application of liquids or solids, we have the same exacerbation of symptom as in acute pericementitis, and the identical role is the feat in this play. Only, instead of hope to get better, it grows worse, unless stopped by the mechanical means of filling. The patient guards his morsel better than in having pericementitis, although every quantity of liquids or solids that enter his mouth the pain comes storming back. This also causes nervous shattering, and in two ways attack the stomach:

one by masticating very poorly the food; and, secondly, the nervous telegraphic communication from the tooth to the center depot, then reflecting and sent to the stomach, lessening secretion over which preside the pneumogastric nerves and the sympathetic. As we know, the fifth nerve nucleus and the tenth nerve are close neighbors in the floor of the fourth ventricle; and it has been taught that irritation of the fifth nerves is many times reflexed to the tenth nerve, and that is the way we get the lessened secretion of the stomachic glands.

Now we can tell in short how a root without function and a gap left by extirpation of a tooth produces serious trouble. Wherever there is an organ created to work and it does not exercise this function, it becomes diseased. The same law is laid down to the teeth; whenever the crown of a tooth is severed by mechanical force or result of decay, and the root left in its socket, and no use for it, it always becomes diseased at the apex, and neuralgic symptoms are complained of. These symptoms, again, are: severe pain on striking it during mastication, and continuous pain on that side of the face, which are nearly always wrongly diagnosed by the attending physician and drugs emptied into the stomach for hopes for relief, but unavailingly. These cases are generally called facial neuralgia, as the pain is shifting when excited; but, unmolested, the pain is generally localized, with radiation at times.

Now for the last, which is neither the least: After extraction of such a vital organ as the tooth plays in our economy, bad effects cannot be otherwise than expected. Without the small organs that masticate the morsels of food there cannot be perfect salivation. Yes, even by one missing from the arch there cannot be one meal relished without several unchewed pieces passing into the stomach that will, as we know, set up decomposition, and we are all able to comprehend the results. Again, by having decayed teeth in the mouth which cause no pain, they are as detrimental to the health as though severe pain were present; for food collects in these cavities and is held there probably for a day or longer, until the entire mass is decomposed, which has a very offensive odor; this is dislodged by a toothpick or washed down with water, followed by the smack of the lips, to the patient's satisfaction. Filled with germs, pus and ptomaine, what less could develop, by our modern pathological reasoning, than toxæmia? But it appears to affect the stomach alone; at times, a heightened temperature with anorexia. These symptoms can be hard to interpret and probably never to be diagnosed.

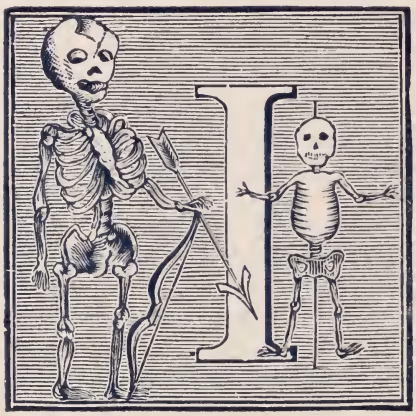
A few remarks on affections of the oral cavity may not seem monotonous. Those diseases that derange the digestive function are the herpetical, which is a very painful subepithelial vesicle; and at times the symptoms are constitutional with slight elevation of temperature. The others are ulcers, resulting from scorbutus, mineral poisons, etc.; scurvy, as well, like uric acid diathesis, when they predilect the gums and loosen the teeth. Abnormal secretions accompany this process, and at length, if allowed to persist, these organs drop out, after long suffering and pain. It is plain how all of this will disturb the digestive organs, without special elucidation and enlightenment on this matter.

I do not feel disposed to cite any cases to substantiate or demonstrate the facts of my conclusions, as they are multitudinous and would occupy

more space than would be fruitful to the reader in this connection. Many readers may feel disposed to doubt these conclusions, but they are derived from scrutiny and deep research and untiring efforts for self-instruction, with a vast field for exploration.

ON A MODE OF STRETCHING SOME URETHRAL STRICTURES.

By REGINALD HARRISON, F. R. C. S., of London,
Surgeon to St. Peter's Hospital.



IN SOME remarks on urethral stricture previously published,[1] I have referred more particularly to its treatment by dilatation and by certain forms of urethrotomy or section. I have also described some instruments I usually employ with these processes. In an obstructive disease, which presents so much structural variety, cases are occasionally met with where, either from the urgency of the symptoms, or the nature of the stricture, it will be found impossible to utilize these methods, and modifications of them may be substituted with advantage.

The rarer cases of advanced stricture to which I am now referring usually owe their urgency to being complicated with some degree of retention of urine, which also calls for surgical aid. A man of middle age, I will say, has been suffering from a neglected stricture for some months or years. Eventually he is either suddenly seized with inability to pass urine at all, or he becomes seriously inconvenienced by the increased tension of a never-emptied bladder.

Let it be assumed that the stricture is so hard, contracted, or tortuous as to resist hot baths, opium, and catheterism with all forms of flexible instruments, and access to the bladder can only be effected by a fine metallic catheter. Possibly, this even may require the aid of an anæsthetic. If such a catheter is tied in, it not unfrequently slips out during the night, and all the trouble of replacing it or substituting a somewhat larger one has to be repeated; and not always with success. Even if it is retained, it may not be possible to substitute a larger one; and thus the progress of the case in giving increased relief to the patient is either hindered or proves impossible.

Nor is the retention of a fine catheter, such as Nos. 1, 2, or 3, in a septic bladder to be desired, even though some relief to tension is afforded, any more than a drainage tube that won't drain is with a putrid abscess. Unless the relief is sufficient in either case, sepsis is sure to follow, if it has

[1] The *Lancet*, April 23 and June 11, 1898.

not already commenced. With a small catheter, such as those I have referred to, it is impossible to wash out and disinfect the bladder; and puncture or any forms of cystotomy or urethrotomy are not always advisable under these circumstances.

It is in cases of this type, when the surgeon has succeeded in passing a small metallic catheter through a tight and difficult stricture into a more or less distended bladder, that the inability to expand the instrument at the same time, and so to stretch the stricture before withdrawing it, is not unfrequently experienced.

With this object in view, I described, some years ago, an instrument constructed on the lines of a Holt's dilator which appeared to meet the difficulty, and I have since continued to use it with advantage. It is provided with a pilot-guide, as well as with a screw-top, in case the former proves useless. It contains a fine test catheter, on which the dilators run. It is fitted with a series of seven rods, by which dilatation may be carried from a No. 3 to a No. 12 (English gauge); and the introduction of the latter is controlled by a spiral spring which consolidates the instrument and makes it act as one piece.

On the dilator being passed, as an equivalent to a No. 3 catheter, the stylet is withdrawn, and the correct position of the instrument is judged of by its transmitting urine, and from its position relative to the rectum. Then the introduction of the dilating rods, in accordance with their number and size, is proceeded with, whilst the anæsthetic is continued. This is to be done deliberately, so as to stretch, and not to lacerate, the stricture, the process usually lasting, according to the rigidity of the contraction, from about ten to twenty minutes. When the largest rod is reached the fully-distended instrument, now representing No. 12 in caliber, is quietly withdrawn, and the urine that remains is drawn off by a full-sized silver catheter, which may be passed easily. The bladder is then washed out and disinfected, and a soft catheter is tied in and retained for forty-eight hours or so. As the process is one of stretching alone, rigors or fever rarely follow.

The subsequent management of the case merely consists in instructing the patient how and when to pass a bougie for himself, and so to endeavor to permanently maintain the normal dimensions of his urethra. It is hardly necessary to illustrate the kind of case to which this treatment is applicable, as it will readily occur to those who have had any practical experience of them. In proceeding to adopt it the only drawback that is likely to happen is the case proving, on trial with an anæsthetic, to be an impassable stricture. Under such circumstances Wheelhouse's perineal operation would probably be selected as the alternative.

Where, however, the dilator can be passed in the manner I have endeavored to describe, both patient and practitioner will be none the worse for knowing that the retention of urine has been relieved in such a way as will permit the introduction of a full-sized catheter into the bladder.

FORMULAE.

For Gonorrhœa.—Some of the prescriptions for vaginitis and gonorrhœa used in Dr. Anderson's gynecological clinic at the College of Physicians and Surgeons of San Francisco, are:

℞ Thymol ..... gr. vj
Lysol ..... ℥ ij
Aquæ ..... q. s. ad ℥ vj

Misce et fiat solutio.

Signa—One tablespoonful in a gallon of hot water (110° F.) for douche twice daily.

℞ Creolin ..... ℥ j
Glycerine ..... ℥ j
Aquæ ..... q. s. ad ℥ vj

M. Sig.—One-half ounce in eight pints of hot water for douche twice daily.

In gonorrhœa the favorite remedies for douching are:

Potass. perm	1 in 10,000 to 1 in 500
Formalin	1 in 1,000 to 1 in 500
Chinosal	1 in 10,000 to 1 in 50
Mercuric chlor.	1 in 10,000 to 1 in 500

—*Pacific Medical Journal.*

Local Anæsthesia Electrically Induced.—While making experiments on the sensations derived from sinusoidal currents, it was recently discovered by Prof. Scripture, of Yale, that anæsthesia of the tissues resulted from currents of high frequency, the condition even persisting for some time after removal of the electrodes. This should excite the attention of medical men, surgeons more especially; and if such local anæsthesia proves to be wholly practicable and safe, such will prove a veritable boon, indeed.—*Scientific American.*

For Irritable Bladder.

℞ Salol .....
Tinct. hyoscyami ..... aa ʒ ij
Inf. buchu ..... q. s. ad ℥ vj

M. Sig.—One tablespoonful three times daily.—*Medical News.*

For Chronic Cystitis.

℞ Guaiacol ..... grs. lxxv
Iodoform ..... ʒ j
Sterilized olive oil ..... fl ℥ iij

For injection into the bladder.—G. COLIN.

Itching of Urticaria.

℞ Menthol ..... 1 part
Chloroform ..... } each
Ether ..... } 3 parts
Spirit of camphor ..... }

Sig.—Spray affected parts and then dust with zinc oxide.—*Province Medicale.*

For Erysipelas of the Face.

℞ Carbolic acid ..... gms. 30
Tincture of iodine ..... gms. 30
Alcohol ..... gms. 30
Oil of turpentine ..... gms. 60
Glycerin ..... gms. 90

M. Sig.—The lesions are to be painted with this liniment every two hours, and covered with aseptic tarlatan.

London Cough Mixture.

℞ Acid benzoic ..... grs. xij
Ol. anisi ..... *m* ij
Spt. ammon. arom ..... ʒ iss
Spt. æther nitrosi ..... ʒ iij
M. and add:
Vin. ipecacuanhæ ..... ʒ iij
Tr. capsici ..... *m* xx
Glycerini ..... ʒ iv
Inf. senegæ conc ..... ad ℥ iij

M. Sig.—Allow to stand until clear, and decant.

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IMPORTANT RESOLUTION.

At the last meeting of the American Medical Association a resolution was passed which is of interest to all friends of higher medical education. It provides that professors, or teachers in, or graduates of schools whose requirements are below the standard adopted by the Association of American Medical Colleges, shall not be allowed to register, either as delegates or permanent members of the American Medical Association. This hits the three-years' schools, of which Saint Louis has one and Kansas City four or five. Following is the text of the resolution:

WHEREAS, The American Medical Association did, at Detroit, 1892, unanimously resolve to demand of all the medical colleges of the United States the adoption and observance of a standard of requirements of all candidates for the degree of Doctor of Medicine which should in no manner fall below the minimum standards of the Association of American Medical Colleges; and

WHEREAS, This demand was sent officially by the permanent secretary to the dean of every medical college in the United States, and to every medical journal in the United States. Now, therefore, the American Medical Association gives notice that hereafter no professor or other teacher in, nor any graduate of, any medical college in the United States,

which shall, after January 1, 1899, confer the degree of Doctor of Medicine, or receive such degree on any conditions below the published standard of the Association of American Medical Colleges, be allowed to register as either delegate or permanent member of this Association.

Resolved, That the permanent secretary shall, within thirty days after this meeting send a certified copy of these resolutions to the dean of each medical college in the United States, and to each medical journal in the United States. J. M. B.

TIME FOR REFORM.

It is high time that the medical colleges were reforming. All over this land are so-called medical colleges which have graduated men so deficient in education that many of them cannot spell the technical terms they try to pronounce. Often the oldest and apparently most respectable medical schools have been the greatest offenders. Not only should the colleges reform in this particular, but the miserable bidding for students by the reduction of fees should be stopped. The writer knows that such reprehensible practices are often resorted to by the secretaries of medical colleges. In one instance a school whose fees aggregate fifty or sixty dollars admitted a student to a whole winter's instruction on payment of ten dollars.

There is room for more medical colleges—of the better class. The profession can look only with disfavor on the cheap schools and those in which medical charity is abused. J. M. B.

NON-MEDICAL JOURNALS.

We are grieved to notice that in the past six months the advertisement of Ayer's Cherry Pectoral has appeared in several journals which are supposed to be conducted for the regular medical profession. Among those which have lapsed from the path of rectitude we notice the following: *Medical Mirror*, *Gaillard's Medical Journal*, *Iowa Medical Journal*, *Charlotte Medical Journal*, *Cincinnati Lancet-Clinic*, *Kansas City Medical Index*.

Since the American Medical Association has taken a firm stand on the subject of higher medical education, we hope it will say something *ex cathedra* on medical journals and medical journal advertising.

J. M. B.

TROUBLE IN LOUISVILLE.

Merry hades has broken forth in two or three of the medical colleges of Louisville. Professors galore have been ousted, reinstated, and some new professors have been created. The chief scenes of hostilities have been the Louisville Medical College and the Kentucky School of Medicine. That doctors should quarrel is not surprising, but that Louisville doctors should be at war almost challenges belief; for every one has looked upon Louisville as a place in which the medical dogs of war were long ago killed by overindulgence in Kentucky whisky.

We trust that hostilities will be of short duration, and that all differences may be settled at the nearest bar.

DEATH OF DOCTOR PEPPER.

In the death of William Pepper our profession has lost one of its brightest ornaments, and the cause of higher medical education has lost one of its staunchest advocates. Doctor Pepper was professor of pathology at twenty-five, of clinical medicine at twenty-seven, and succeeded to Stille's chair of theory and practice at thirty-three. In 1881 he became provost of the University of Pennsylvania, resigning in 1894. During his period of office the university made wonderful advances. Pepper was a worker. His literary labors alone were remarkable. Meigs and Pepper's treatise on "Diseases of Children" is a classic; and Pepper's "System of Medicine" is one of the greatest works of its kind. Doctor Pepper was the founder of the *Philadelphia Medical Times*, which he edited for two years, and at the time of his death was one of the editors of the *Philadelphia Medical Journal*. His articles in the medical journals, addresses and orations would fill several volumes. J. M. B.

MEDICAL COLLEGES CONSOLIDATE.

There is cause for congratulation that the medical colleges are tending toward consolidation. Recently the Bellevue Hospital Medical College and the University Medical College of New York have united under the name of the University and Bellevue Hospital Medical College. The new institution has a remarkable strong faculty. In Buffalo the University of Buffalo, medical department, and Niagara University, medical department, have united. In Atlanta the Atlanta Medical College and Southern Medical College have consolidated to form the Atlanta College of Physicians and Surgeons. Let the good work go on.

BEHRING'S PATENT.

The patenting of diphtheria-antitoxin by Professor Behring has brought out a torrent of adverse criticism in the medical journals. A clear statement of the facts appears in the *Philadelphia Polyclinic* for August 13th. Following are extracts therefrom:

"This patent, as preposterous as it is inhumane, may for the present be legal, but it is not just. We have learned from the two leading American manufacturers whose antitoxin is advertised in our columns (Messrs. H. K. Mulford Co. and Messrs. Parke, Davis & Co.), and the superiority of whose products over the imported serums is generally believed in by American physicians, that they purpose to fight the patent in the courts; that they admit neither its justice nor its legality; and that they will protect all who purchase or use their serum.

"Behring's merit as an investigator has been great, and none save himself has desired to rob him of his glory; but the exclusive discovery necessary to a valid patent can scarcely be established in law. Roux and Aronson, to mention no others, can dispute with him technical priority as to diphtheria-antitoxin, while the principle of immunization was established by Pasteur. In no other country than the United States has even the attempt been made to secure a patent on antitoxin. There must be some grave defect in our patent laws to permit it to be attempted here. If successful,

the work of the Boards of Health in New York, Chicago, Philadelphia, and elsewhere, in supplying antitoxin free to the poor, will be stopped or tribute levied upon the treasuries of those cities." J. M. B.

THE ONWARD MARCH OF OSTEOPATHY.

There is no denying the fact that the fad called osteopathy is extending its sphere, and this in the face of great opposition. We should not wonder at this when we recall the fact that the public knows nothing of medical science and art, and that the layman is always seeking the mysterious and occult in medicine. The success which has attended the efforts of the sanitarium boomers in this city to unite the following of Christ with the practice of medicine "by the best doctors in St. Louis," shows that we need not be surprised at anything.

Recently an item appeared in the *Pacific Medical Journal*, which gives us true cause for alarm. The writer says:

"The osteopaths have won their fight in Iowa. Governor Shaw has signed the bill giving them the right to practice in that State. This is said to be the tenth defeat to scientific medicine in the United States which this so-called school has accomplished. Vermont, North Dakota, South Dakota, Missouri, Illinois, Michigan, Colorado, North Carolina, and Kentucky osteopaths claim as theirs by right of conquest, and they are pushing ahead with vigor trying to get every other State in the Union to destroy existing medical laws. They put forward the claim that they are seeking the same rights and privileges as the regulars; and, as it does not seem to occur to any one to disprove this claim, its apparent plausibility and justice wins the heart of legislators, even where no more substantial reason is forthcoming. Why cannot this lie of theirs be punctured? They are not seeking the same rights and privileges as the regulars, but very much more. They seek to evade the examinations and other educational tests of fitness that regulars, homœopaths and eclectics are forced to undergo." With so much abuse of medical charity in the great cities, the existence of "fifty-cent hospitals" and cheap aid societies, the outlook for the medical man is not so rosy as we could wish for him.

TO PROSPECTIVE SUBSCRIBERS.

Many copies of this month's JOURNAL go to physicians who are not subscribers. We respectfully ask our new readers to examine this magazine, and, if pleased with it, we will make them a special offer, viz.: We will send the JOURNAL for the remaining months of 1898 and during 1899 for one dollar. This issue contains nine original articles. One article on the history of medicine has been crowded out; it will appear in September, and will be elaborately illustrated. The title is: The Mechanical School of Medicine. It was to this school that Sanctorius, Borelli, Bellini, Boerhaave, and others, belonged. Its influence was great during the seventeenth and eighteenth centuries.

A System of Practical Medicine. By American Authors.—Edited by ALFRED LEE LOOMIS, M. D., late Professor of Pathology and Practical Medicine in the New York University; and WILLIAM GILMAN THOMPSON, M. D., Professor of Medicine in the Cornell University Medical College, New York. In four imperial octavo volumes. Volume IV.—Diseases of the Nervous System and Mind; Vasomotor and Trophic Disorders; Diseases of the Muscles; Osteo-Malacia; Rachitis; Rheumatism; Arthritis; Gout; Lithæmia; Obesity; Scurvy; Addison's Disease. Ten hundred and ninety-nine pages, ninety-five engravings, and eight full-page plates in colors and monochrome. For sale by subscription. Per volume, cloth, $5.00; leather, $6.00; half morocco, $7.00. Lea Brothers & Co., publishers, Philadelphia and New York. 1898.

The issuance of this volume completes a great work, and one of which America can well be proud as adequately representing the advanced state of medical science in this country towards the close of the nineteenth century. The time was clearly ripe for such an enterprise, as a number of progressive years had passed since the publication of the *System of Medicine*, edited by Pepper. Professors Loomis and Thompson have succeeded in securing precisely the right class of contributors, namely, the busiest and most experienced men, those who find it most difficult to divert from practice the time necessary for writing. Only a work issued under the highest auspices and under conditions promising the widest distribution could either interest or recompense those authors whose knowledge is best worth having. The creation of a library of medicine in four convenient volumes, was a problem requiring the most careful judgment in plan and execution, and it has been well worked out. By giving only such information as will be of value in practice, and detailing that in full, the *American System* presents the reader with the maximum of what he really needs, with a minimum expense of money and time.

The Surgical Complications and Sequels of Typhoid Fever.—By WM. W. KEEN, M. D., LL. D., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Based upon tables of 1700 cases. Compiled by the Author and by THOMPSON S. WESCOTT, M. D., Instructor of Diseases of Children, University of Pennsylvania. With a Chapter on the Ocular Complications of Typhoid Fever by GEORGE E. DE SCHWEINITZ, A. M., M. D., Professor of Ophthalmology, Jefferson Medical College. And as an appendix the Toner Lecture No. V. Octavo volume of about 400 pages; cloth, $3.00 net. Philadelphia: W. B. Saunders, Publisher.

This book, as indicated by the title, covers thoroughly the surgical complications and sequels of typhoid fever. Dr. Keen should receive the thanks of the profession for his careful work. There has never been anything published that we know of which so fully deals with this subject. All the possible points of occurrence of typhoid bacteria throughout the body are discussed. The total literature for over a quarter of a century has been carefully studied, all cases analyzed and the results tabulated, making it a volume which should be in the hands of every practitioner.

Atlas of Legal Medicine.—By DR. E. VON HOFMAN, of Vienna. Edited by FREDERICK PETERSON, M. D., Clinical Professor of Mental Diseases, Woman's Medical College, New York; Chief of Clinic, Nervous Department, College of Physicians and Surgeons, New York. With 120 colored figures on 56 plates, and 193 half-tone illustrations. Cloth, $3.50 net. Philadelphia: W. B. Saunders, Publisher.

Atlas of Diseases of the Larynx.—By DR. L. GRÜNWALD, of Munich. Edited by CHARLES P. GRAYSON, M. D., Lecturer on Laryngology and Rhinology in the University of Pennsylvania; Physician in Charge, Throat and Nose Department, Hospital of the University of Pennsylvania. With 107 colored figures on 44 plates, and 25 text illustrations. Cloth, $2.50 net. Philadelphia: W. B. Saunders, Publisher.

These books, like everything that Mr. Saunders issues, are of the best. We know the height which illustrative and reproductive skill has attained, but much of this class of work has not been obtainable in America except by the importation of the original works as they appeared abroad. Mr. Saunders has done the American profession a favor in essaying the publication of this excellent series of atlases.

Atlas of Syphilis and the Venereal Diseases.—By PROF. DR. FRANK MRACEK, of Vienna, with seventy-one colored plates. Duodecimo, pp. 122. Price, $3.50 net. Philadelphia: W. B. Saunders. 1898.

This is one of the most useful of the series of medical hand atlases which appeared in Vienna, and has recently been placed before English-speaking readers by Mr. Saunders.

Treatment of Febrile Conditions in Children.—Excessive temperatures occurring in the acute infectious diseases of children, particularly in pneumonia, may often be successfully treated by the following formula:

℞ Lactophenini 0.1
Sacch. alb 0.3
M. Ft. pulv. dent. tal. dos. No. X.
S. Give one powder every three hours to a child from two to five years.

For acute intestinal disease in children of from six to twelve years, marked by high temperature, the following may be used:

℞ Lactophenini 0.15
Bismuth salicyl 0.10
M. Ft. pulv. dent. tal. dos. No. VI.
S. Give one powder in wafer or capsule every three hours.

—*Archives of Pediatrics*, February, 1898, p. 145.

DEPARTMENT OF PEDIATRICS.

BY ROLAND HILL, M. D., OF ST. LOUIS.

Motor Aphasia at the Beginning of Scarlatina.—Brasch (*Berliner Klinische Wochenschrift*) reports a case of scarlatina in a girl, aged three and one-half years, in which motor aphasia appeared on the fourth or fifth day of the eruption, thus differing from the usual time of appearance, which is late in the disease, ordinarily about the time of appearance of renal symptoms, and is a symptom of uræmia. In the case reported the speech-disturbance disappeared after fifteen days. The author has searched the literature, but has found no other case of aphasia at the beginning of scarlatina. The observation shows that the prognosis of aphasia in these cases in children is good.—*American Journal of the Medical Sciences; Archives of Pediatrics.*

The Management of Hernia in Infancy and Childhood.—This article by Wm. B. Coley (*Archives of Pediatrics*, April, 1898) is of very considerable interest to the general practitioner. He advocates the use of a truss in preference to operation, save in femoral hernia, in hernia made of irreducible or adherent omentum, and cases which are liable to be neglected. There should be no delay in providing a support, as strangulation has occurred as early as the sixth week. He believes that many cases are cured by a well-fitting truss, worn day and night for two years. At the end of that time, if the hernia is still present, he does not think a permanent cure likely to take place, and advises a radical operation. He reports a mortality of one-quarter of one per cent. in some three hundred cases operated on.

Hutchison, J. Alex.: Appendicitis in a Child (*Montreal Medical Journal*, 1898. Vol. xxvii., No. 2).

S. P., aged two years and six months, was admitted to the Montreal General Hospital, July 3, 1897, suffering from acute appendicitis. Two days before admittance the mother noticed that the child appeared to be suffering acute pain; would suddenly stop playing and begin to cry. There was some vomiting and diarrhœa. This continued, and on the third day the child was seen by Dr. George Berwick, who diagnosed the condition and advised operation. In the evening, and in the absence of any immediate symptoms of danger, operation was postponed until the following morning. At the operation a gangrenous appendix, with a large perforation at the distal extemity was found in a large cavity well walled in, which was full of pus and involved the pelvis. After excising the diseased tissues and wiping out the cavity, it was packed with iodoform gauze and a large tube was placed in the wound. After operation, for a time the patient had a high temperature and considerable abdominal distention. The following day the general condition was improved. Under chloroform, hernia of the intestine was returned through

the incision. The case made an uninterrupted recovery from this time. So far as the author knows, this is the youngest case successfully operated upon with recovery. In addition, it is not generally thought that children of this age suffer from this condition, one which could be easily overlooked without a careful abdominal examination.—*Archives of Pediatrics.*

Sulphur in Septic and Tubercular Ulcers.—Miller, of Edinburgh, says (*Practitioner*) that sulphur is non-poisonous, and when applied to fresh surfaces there are formed sulphuretted hydrogen, sulphurous and sulphuric acids, and it is these three products that act on the tissues.

Being in the nascent state their bactericidal effect is energetic and lasting.

In fresh wounds and ulcers sulphur is applied as a fine powder; in septic and tubercular ulcers a ten per cent. glycerine emulsion is injected. The burning that follows can be relieved by cocaine.

The author says that under the sulphur treatment ulcers and abscesses that have been treated by other methods for months often heal in a week.

Ferratin in Anemia.—Dr. A. A. Saunders (*Atlantic Medical Weekly*, July 16, 1898) reports the case of a sixteen-year-old girl having "diplopia, due to a paralysis of the abducens, and, possibly, caused by her anemic condition." After several weeks' treatment with various preparations of iron without benefit, he ordered eight-grain doses of ferratin thrice daily. "The blood count made two weeks later showed an increase of over a million red corpuscles per ccm., and the gain was steady from that time on."

Acetanilid, manufactured by the Herf & Frerichs Chemical Company, is made by a patented process which permits the elimination of even the smallest traces of free aniline oil, which are frequently found in the acetanilid offered in the market. It is well known that aniline oil, even in very small doses, is highly injurious, having a very marked effect on the heart.

In the process referred to even the smallest traces of aniline oil are removed by simultaneous application of a vacuum and superheated steam, whereby an exceptionally pure article is obtained without any addition of chemicals.

The acetanilid is offered to the trade in crystals, as well as in the shape of a very fine powder; and the latter is highly recommended for use in dispensing and in surgery, since the process of making the powdered article admits of producing an article of greater purity than the process of crystallizing. Both qualities, however, respond to the severest tests of the United States Pharmacopœia.

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ORIGINAL ARTICLES.

CONVULSIONS, SPASMS AND TREMORS.[1]

By J. J. M. ANGEAR, B. Sc., M. A., M. D.,

Professor Nervous and Mental Diseases in the Illinois Medical College, Chicago, Ill., and Professor Physiology and Nervous and Mental Diseases in College P. and S., Keokuk, Iowa.

THIS paper is not written for the specialist, but more particularly for the student of general medicine. It may be said to be an introduction to a large and important class of symptoms of nervous ailments, the significance of which is not always apparent. It is important in a three-fold sense: First—On account of the seriousness of the pathological conditions which cause the spasms. Second—On account of the serious damage which they themselves may and do cause. At times causing cripples or idiots and again both, and frequently death. Third—Because they may be the means by which we can make important differential diagnoses of nervous diseases.

[1] Read at the May monthly meeting of the faculty of the Illinois Medical College.

Convulsions or spasms, technically, hyperkinesis, which means an exaggerated motility manifested by contractions, or contractions with relaxations, of the muscles, a group of muscles, or of the general muscular system, which may or may not be attended with unconsciousness.

All nervous tissue, in common with all other living tissue, possess irritability, excitability, or stimulability; and this implies that there is such a thing as an irritant, excitant or a stimulant. The former is a property of the tissues, and therefore is *within*, while the latter is foreign to and independent of the tissue, and therefore *external* to it. Either one or both of these, the irritant or irritability, may be normal or abnormal, and may be abnormally increased or decreased. This is all equally true of the muscular as well as the nervous tissue.

Inhibition is as important in the psychical as well as in the physical world. The culture of the inhibitory makes the difference between the moral and the immoral.

We have reason to believe that there is a voluntary and involuntary inhibitory as well as a motor power, as manifested in the control of the sphincters. This inhibitory power may be abnormally increased or decreased. We know this, but we know absolutely nothing how it is controlled; that is, what will increase or decrease it, except the voluntary. We say that curare decreases muscular excitability; may it not increase the inhibitory power? Again, we say that strychnine increases muscular excitability; but may it not decrease the inhibitory influence; or may not that which increases the muscular irritability decrease the inhibitory power at the same time? Here is a field for thought and one that has not been cultivated.

The inhibitory power, the nervous energy or influence, as well as muscular excitability, each one may be increased or decreased independently of the others. The muscular and nervous excitability may be changed in quality as well as in quantity, pathologically.

If we have an abnormal inhibitory influence, and the muscular and nervous systems remain normal, there will be abnormal motility. The increase or decrease of the quality or quantity of the excitant or excitability of the nervous or muscular systems, together with changes in the inhibitory influence, constitutes the pathological gamut. The various changes and combinations of the factor of this gamut, in quantity or quality, gives us the great variety as well as the severity of convulsions, spasms or tremors.

Convulsions, spasms or tremors may arise from cortical, peripheral, muscular or reflex irritation as well as from toxic influences. The cells in the psycho-motor centers of the brain, under normal conditions, are set in action only by the will, and then a nerve influence thereby is sent to the motor cells in the anterior cornu of the spinal cord, and normal muscular action is the result. Under abnormal conditions, these psycho-motor cells may be acted upon by a mechanical, chemical, electrical or toxic irritant instead of the will, and again the motor cells in the spinal cord are thus made to send their influence to the muscles, and as a result we have an abnormal motility, which we call spasm or convulsion.

Convulsions are very common, especially in children, on account of the unstable condition of all their tissues. A convulsion is recognized as

a symptom of some malady. To say that the patient is in a spasm or has had a convulsion may satisfy the laity, but the medical attendant ought not to stop short of determining the disease or condition of which the spasm is a symptom, if possible. To determine the significance of the convulsion is frequently a very difficult if not an impossible thing.

At the present time we know something of the brain centers for a large number of functions, but not of all. I am safe in saying that we know more of the motor cortical than of any other class of functions. These centers are not bounded with sharp lines of demarkation, as are between states or towns. They, more or less, overlap or are blended one with the other. If the center for the thumb, for instance, be stimulated with a very slight stimulant, the thumb alone will be moved; but if we double the irritant, we shall not only move the thumb but the wrist also. If, again, we increase the irritant, we shall convulse the whole limb. This is proven by the following common experiment: If we decapitate a living frog and leave him on the table undisturbed, he will remain there until he is removed by some external agency; but if we gently prick his foot with a pin or apply some other stimulant or irritant, he will simply move his foot; but if we prick him more severely, he will move his whole limb; but, again, if we increase the irritant, he will jump off the table. So it is with convulsions. They are severe and general in proportion to the increase of the quantity or change of the quality or an increase of the irritability of the tissues involved, viz.: the nervous centers or the muscular fibers or a change in the inhibitory power; hence, the great liability to convulsions in children because of the unstable condition of all infantile tissues.

All living muscular tissue, in a normal condition, is kept in a natural contracted state by rhythmical impulses coming from the motor centers of the brain or from the motor cells of the cord to the muscular fibers. Under normal conditions these impulses are about twelve per second; when they are less, say ten per second, the recognized result is an abnormal and involuntary muscular action, which is called a tremor. When the impulses are still less, say six or eight per second, as a result we have a coarse tremor. On the other hand, if the impulses are more numerous than normal, say fourteen per second and upwards, the result is a continuous contracted condition of the muscle, which is named tonic spasm or tetanus, which rises in intensity as the number and strength of the impulses are increased or as the muscular irritability increases. When the tremor becomes severe it is called spasm or convulsion. Eclampsia is a convenient name for all acute attacks, and epilepsy for all chronic attacks of convulsions. If a patient has but one spasm, as at the commencement of an infectious fever, we call it eclampsia, or if there should be a series of convulsions, as in a pregnant or a puerperal woman; but if the convulsions should occur occasionally, say once a week or two or three times a month or year, then it is spoken of as epilepsy, which the laity call fits or spells.

Tremor may not appear while the patient is passive, but as soon as he attempts to put forth a voluntary effort, then the tremor makes its appearance; this is called intention tremor. On the other hand, as long as the voluntary muscles are engaged in doing something there is no tremor, but

as soon as voluntary action ceases then the tremor begins; this is called tremor of rest. Tremor is evidence of weakness. In neurasthenia, a fine tremor may be present in the hand, eyelids and tongue. The same may be said of hysteria. When there is a combination of delirium, delusion and a tremor, it is called delirium tremens. But because this is the result, generally, from the use of alcohol, the term is generally limited to this specific condition; but it may and does arise from other causes, but, for obvious reasons, other names are given to it.

Tonic spasm or tetanus may be partial or general. General tetanus consists of a spasmodic contraction or rigidity of most, if not all, of the voluntary muscles of the body. Partial tetanus receives different names, depending upon the part of the body affected. When the muscles of mastication are affected, it is named trismus or lock-jaw. When it occurs in the new-born, it is called trismus nascentium or neanotorum. It may be the result of trauma, then it is spoken of as trismus traumaticus. If it is not confined to the jaw, it is then called traumatic tetanus. If the muscles of the back are tetanized so as to bend the body backward, this is opisthotonos. When the body is drawn sidewise by tetanized muscles, this condition is spoken of as pleurosthotonos or pleuro-spasm. If the trunk of the body is bent forward by tetanized muscles, this condition is emprosthotonos. If the extensor and flexor muscles are equally contracted, the body is made rigid and straight, hence it is called orthotonos. When the muscles of the face are thrown into a tonic spasm, causing a singular convulsive laugh, it is called risus sardonicus.

Trismus, one of the initial symptoms of tetanus, is a spasm of the muscles of mastication, while the spasm arising from strychnine poisoning never commences with trismus. If it ever occurs in strychnine poisoning, it is one of the last symptoms. The peculiar spasm of hydrophobia is in the muscles of the larynx, causing very painful dyspnœa; the act of swallowing intensifies it, hence the dread of swallowing anything. It is not so much the dread of water, as the name implies, but the dread of swallowing. In trauma about the head and face, if tetanus sets in it is very liable to attack the muscles of the larynx, as in hydrophobia, then it is called tetanus hydrophobicus. "In rabies convulsions occur in a large proportion of cases: these are sometimes clonic, extending more or less over the voluntary muscular system; and they are sometimes tonic, as in tetanus."

The act of grinding the teeth and the act as if chewing the tongue in tubercular meningitis is a co-ordinate spasm. Jaw-chatter is a clonic spasm of the muscles of mastication, but more particularly the masseter muscle.

A convulsion may affect all the muscles of the body, then it is said to be general convulsions. It may affect but one side of the body, then it is said to be unilateral. This is a more serious symptom, because it is indicative of a localized organic disease in the nervous center. It may be limited to one limb or to one or two groups of muscles, this is called partial convulsions, as in Jacksonian epilepsy. Tonic spasm may affect but one muscle, causing pain, then it is spoken of as cramp. It may affect a group of muscles which act physiologically together, then it is called tic; but if it is accompanied with pain, then it is named tic-douloureux. If the tonic spasm is general, it is spoken of as tetanic cramp.

Ordinary clonic spasm, the muscular action is irregular and unlike any normal voluntary action; but occasionally we meet with the reverse of this: the muscular action is like a normal physiological action, as kicking, jumping, striking, etc., this is called co-ordinate spasm or convulsion. If a muscle or group of muscles are physiologically shortened and can be elongated by a superior force without doing violence or under the influence of an anæsthetic, this condition is called contracture; but if the shortening be an anatomical and cannot be elongated without doing violence to the muscle, then it is called contraction. This last condition is not a spasm and is not a nervous condition. The nervous system may have been the prime cause, but at present has nothing to do with the case.

Pressure from any source, blood, pus, tumor, thickened membrane or increase of fluid within the cranium, if sufficient, will cause spasms.

In meningitis there is an increase of bulk because of the hyperæmia. This increase of bulk may be sufficient cause of convulsions, but we must not forget that the cause of the hyperæmia is present, and it may be the cause of both.

That which increases the bulk within the cranium not only makes pressure upon the brain or cord, but it also drives the subarachnoid fluid out and thus removes the natural cushion on which the brain rests; this may be a source of irritation and invoke convulsions.

The reverse of all this will cause spasms, viz.: anæmia; all animals which die from severe and sudden hemorrhage have convulsions prior to death. This is the result of the removal of the natural stimulant from all the tissues of the body and the nerve centers in common with the other tissues, hence the convulsions.

Infantile cerebral palsy is caused by hemorrhage on the cortical surface of the brain, and is the result of the severe pressure upon the head of the child caused by the uterine contractions or by the forceps in instrumental labor. From this cause the child may die before delivery or very soon after. It may have a spasm within a few hours after it is born and die, or this may be postponed a few days. The child may live two or three years and then die in a spasm, or become a cripple, an idiot, a confirmed epileptic, or may be afflicted with athetosis as the result of the damage done to the vascular system or to the brain during the process of being born.

In apoplexy, if the blood be poured out upon the cortex of the brain, then the patient will have a convulsion or a series of them and die. But if the blood be poured out into the central portion of the brain and escape into the ventricles, then he will have tonic contraction of the otherwise paralyzed muscles and will die.

If from an accident the skull be fractured and the bone depressed, causing pressure upon the brain, there may be no immediate convulsions. The patient, in after time, is likely to suffer from partial or Jacksonian or general epilepsy. Cerebral tumor or abscess will do the same.

Toxæmia: one-fifth of the blood is in the brain (Carpenter). Many drugs enter the circulation and are known to act upon the various tissues. The histologist knows that certain dyes have an affinity for certain tissues; thus he is able, through this knowledge, to differentiate the tissues. He

also knows that in the living tissues this affinity is more active than in the dead. Certain drugs will increase and others will decrease the activity, increase or decrease the excitability of the various tissues which have an affinity for these drugs. This is just as true of the causation of spasms as it is upon the action of the heart.

Various microbes create a virus, and the non-eliminated effete matter in the body is a poison. These poisons act in the same way as the drugs, causing the various pathological conditions in the body, convulsions included.

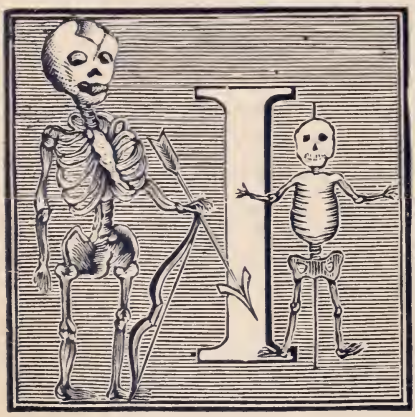
Reflex causes: the nerve is made up of bundles of neuraxons. The neuraxons (axis cylinder processes) are known to be prolongations of the cell bodies. Anatomically, there is no difference between the peripheral and the central nerve matter. Whatever does or will irritate the brain or cord will irritate the peripheral nerves, and *vice versa*, because they are one and the same in nature.

All motor action, whether normal or abnormal, is reflex or secondary. Convulsions or spasms are abnormal and increased muscular action.

WHAT SHALL WE DO TO BE SAVED?[1]

PRESIDENTIAL ADDRESS

By FRANK DE VILBISS, M. D., of Spring Garden, Mo.



IN RESPONSE to your request, made at the May meeting of this society, I herewith present some thoughts regarding the welfare of the society and the profession in this part of the State.

But before doing so I desire to thank you for the honor you have conferred upon me in making me president of this society. I count it an honor, of which any doctor may well feel proud, to be a humble member in good standing in this or any like medical society that is affiliated with the state or national medical associations. For we, as local societies, guard the door to the larger ones; so that he whose qualifications and conduct are such as to entitle him to membership in either the state or national association, can be no less to entitle him to membership in this society. But in addition to membership you have seen fit to bestow upon me the highest position in your gift, and I feel that I do but feebly express my gratitude for this mark of respect.

Gentlemen, the welfare of a medical society is dependent, in a very great measure, upon the existing harmony in the profession from which its membership is drawn. In other words, a medical society will be inter-

[1]Delivered before the Central District Medical Society, at Sedalia, Mo., August 4, 1898.

esting and prosperous in proportion to the degree of harmony and good-will existing in the profession. It is unfortunate, but nevertheless true, that in many of the towns within the territory from which this society draws its membership there exists a feeling between members of the regular profession that is sordid and beneath the dignity of so noble a calling as that of ours. A feeling that in many instances has had its origin in a conceived breach of professional etiquette, real or imaginary, of which some doctor is guilty. The animosity thus created in the heart of the fancied injured doctor is frequently nurtured, fostered, cultivated by little acts of retaliation until it has grown, blossomed and given its unenviable fruit in the way of prejudice and strife where there should be unity, harmony, and brotherly love.

I do not wish to be understood as comparing the medical profession with other vocations, but only endeavoring to lift it to a higher plane of mutual good-will. Neither do I wish to convey the idea that I believe doctors of medicine are more sordid and impure in imputing motives other than right to their fellows than are men of other vocations, for I do not. On the contrary, I believe that a more magnanimous set of men, a class of men who have higher ideals of the relationship that should exist between each other, does not exist than that of the medical fraternity. But "as a little leaven leaveneth the whole lump," so may the little evil, if nurtured long enough, attain great dimensions.

One of these evils which seems to exist is our oversensitiveness regarding what we conceive to be professional etiquette; a proneness to impute impure or sinister motives to the acts of doctors. Another one which is the counterpart of the preceding one is a carelessness in observing strictly that part of the code which pertains to our dealing with each other. To such an extent has this evil grown that we have been reproached by the laity, not because we are more envious, more jealous or more hostile toward each other than are men in other walks of life, but because our profession is expected to elevate us and lift us above these degrading lines of thought.

Now, should you talk with Dr. A, of a given town, he would say that he would be willing to do the right thing if Drs. B, C and D would; and Dr. B would probably tell the same story, and so on through the whole list of doctors in the town. In spite of this stated willingness to do what is right, the strife goes on from year to year; not only lowering the dignity of the profession in the immediate community, but casting a reproach upon the profession in general. Because of this Dr. A prefers not to attend a medical society for fear some one of his patients may get worse and Dr. B will be called and he will be ousted, or that Dr. B will criticise his treatment or do some other unfriendly turn. Or one of Dr. A's patients may get sick, and in his absence Dr. B is called, retains the case, and Dr. A may not only lose the treatment of that case, but possibly the patronage of the whole family. Thus might be mentioned a number of things that might—in fact are very liable to—occur while Dr. A was attending a medical society. But this is only a fraction of the harm which such conditions entail; when existing to so marked a degree, each doctor must be continually on his p's and q's, day in and day out, for fear some other doctor will in some way damage him. Besides this, life goes on

unpleasantly and out of harmony with those from whom we should expect our most pleasant professional associations.

To meet this existing condition and successfully overcome its pernicious influence is a problem that is hard to solve. If every doctor would do the right thing with every other doctor, it would be easy of solution. But if that were true there would be no problem to solve. If every doctor would observe the golden rule, no code of ethics would be needed and our profession would soon rise above the baneful influences which now hold it down and take its position where it properly belongs. Merit with a zealous appreciation of the rights and feelings of our professional brethren should be the foundation upon which to build a professional character.

To promote good-will in the profession and banish the petty dissensions and strife, it has occurred to me that in every town and village where two or more legalized practitioners are located, an effort should be made to agree upon rules to govern them in that particular vicinity in the practice. These rules should be reduced to writing and each one should sign them, with the understanding that all past offenses were forgiven and forgotten, and that henceforth they were to labor for the good of the profession, and that they would strictly observe these rules on the one hand and be reasonably charitable towards an offender on the other.

I am aware that a set of iron-clad, arbitrary rules would not meet the approval of the profession, nor would I recommend it; but I do believe that a set of rules could be agreed upon, where all parties concerned are willing to adjust differences, that would be sufficiently definite so as to meet the requirements in every condition arising where professional relationships are involved. And, further, I believe that each town and village should adjust these matters to their own satisfaction, and one community should not dictate what rules should govern another.

There is one subject that would probably come up for consideration in each community, were an attempt made to harmonize differences, to which I would like to briefly refer, viz.: A schedule of prices. While I would not wish in any way to lower the dignity of the profession, and I would deprecate the idea that doctors should pursue it for the "loaves and fishes" alone, still there is a commercial side to medicine, and one which is inseparably connected with it, and one which should be harmonized by agreement, if possible, in every village. But from the fact that the ability of the laity to pay has such a wide range and the professional skill required to manage even the same trouble in different individuals is so varied, and there are other contingencies which are liable to arise which would jeopardize a physician's interests, were he to follow an arbitrary price, that I believe were a schedule adopted it should have a wide range. And, furthermore, from the fact that when a physician does not consider his services valuable enough to charge a reasonable fee for them, the laity are usually of about the same opinion and will patronize those who value their services more highly. This is rather against those who would, from mercenary motives, charge less than a reasonable fee.

It may be presumptuous in me, but from the fact that in towns where so much strife exists each doctor seems to deplore it, I believe that in the way above alluded to harmony might be restored; and I suggest that this

society make some move towards promoting a more friendly feeling between the physicians in the various towns within its jurisdiction.

If this were accomplished, you can readily see how this society would be benefited thereby. Each doctor, on leaving home to attend a medical society, could make arrangements with his patients for some physician, agreeable to them, to look after them should they need attention before his return. And the doctor, leaving his cares and perplexities behind him, knowing no evil would befall his business, would enjoy the meetings better, prize them more highly, and make greater efforts to attend them. Furthermore, the local profession of every community standing shoulder to shoulder would create better unanimity in the profession in general, thus binding us together so firmly as to materially increase our strength and prestige and fortify us against the impositions practiced by those who, while they cannot be classed as the "worthy poor," yet who make "doctor bills never to be paid;" and the additional influence we would have might better protect us against a repetition of the insult made last year by our chief executive.

It would probably not be out of place in a paper of this nature to consider briefly the part we should play in the present campaign.

The imposition forced upon the people of this great State and the insult to the medical fraternity should stimulate us to marshal our forces that we may announce in no uncertain tones by the voice of the next legislature our opinion of the act passed by the last legislature and endorsed by the governor, legalizing on an equality with medicine graduates of osteopathy. It should forewarn us to interrogate the candidates for the legislature in the various counties and ascertain their views upon this question, and if the views of either candidate from either party be not in accord with our own, or if he is unwilling to pledge himself to support measures which are calculated to lift us out of this dilemma, we should use our best efforts to defeat him, regardless of previous party affiliations. Succeeding in this, then, with an able legislator to champion our cause in the legislature, we may be able to remove this stain from the statute books and apprize certain officials of the fact that the medical profession of Missouri "is not dead, but sleepeth."

In trying to accomplish this, it is my judgment that we should not "sound a trumpet before us," nor proclaim it from the house-tops, but a committee should be selected from each county, and, if necessary, a separate committee for each candidate, which, in an opportune time, should wait upon them, make our wants known and, if possible, secure their promise to use their influence to fulfill them.

Probably enough has already been said regarding the action of the governor in placing the Fulton Asylum for the Insane under the control of the homœopathic school, when no complaint of inefficiency had been made; ignoring the wishes of those whom he is supposed to serve, as expressed by petitions asking him not to do this and signed by a host of citizens from central Missouri and other parts of the State, and placing over ninety-seven per cent. of the inmates of that institution under a treatment which they nor their friends do not prefer. And then his subsequent behavior when charges of immorality and inefficiency of the superintendent were proven before a competent court, after all that had gone

before, to act as president of the Board of Charities and, as every move would seem to warrant, use the influence which the dignity of his office affords to secure a reversal of the decision of the previous court, is only additional evidence that he would sacrifice the interests of the people of the State to carry out his own selfish designs.

While it is to be lamented that our legislature has acted so unwisely, and that we have such a man at the head of the affairs of this State, it should awaken in the medical fraternity a keener realization of the responsibilities devolving upon us, and stimulate us to greater activity to insure wiser men to make and execute the laws of the State.

THE EFFECTS OF INCOMPLETE COITION.[1]

By W. B. Pigg, M. D., South McAlester, I. T.

I WILL not apologize for the ungrammatical construction of the sentence which heads my paper—I did not make it, and I will it to those who did.

The question of coition is one which concerns mankind. It is of vast importance to the human race. It deals with the rights of the unborn. With the laws of reproduction. With the functions of generation and with the pathology of copulation. Upon it depends much connubial happiness—and incompatibility. To it much is ascribed that seems strange and incomprehensible. The asylums of the land have sheltered many for which it is responsible.

I do not know who selected for me this subject. Some member of the program committee, perhaps, who was too modest to tell his own experience, or it may be that he desired to compare my experience with his own. My experience and observation, I must admit, have been more largely with the complete variety. Indeed, this particular field of investigation has never seemed to me alluring; it was always unsatisfactory, but for the benefit of those whose experience has been different, who have so kindly delegated to me this task, inexperienced though I am, I will do my best.

I will take a somewhat wider range of the subject, however, than that allowed me in the caption of this paper, for when I mount my Pegassus to soar, I want no golden bridle of Minerva to restrain him. I shall include under this head all cases of sexual perversity, where the act is other than normal. In this class may be included every variety of sexual garbling, from sodomy to masturbation; every disloyal act under

[1] Read before the Indian Territory Medical Society, at Wagoner, I. T., June 1, 1898.

the reign of Priapus, from titillation to the act of going down. This subject is not a new one—it is as old as civilization, older.

Much has been written on this subject in ages past and present. The ablest writers of every land have deigned to give it their attention. From Moses to Gibbon it has entered into history—from Homer to Hammond it has furnished food for fact and fancy.

Old classics tell how Kronos, armed with the sickle of Gaeac, interrupted Urinus in the act, amputated his genitals and cast out the bleeding member behind him; how, out of the genitals themselves, as they swam and foamed upon the sea, emerged the goddess Aphrodite, whose soft tread awakened the sleeping verdure into bloom, and whose smile fired with love the hearts of men, whose form has been the masterpiece of all who strove with brush and chisel, and upon whose altars burned forever the sweet incense of love and beauty; yet, at best, it was but a case of incomplete coition. No wonder the full act produced the Titans, the Cyclops and the hundred-handed Hekaton cheires.

The earliest history of sexual perversity is told in the nineteenth chapter of Genesis: "And there came two angels to Sodom at even, and Lot sat in the gate of Sodom, and Lot seeing them rose up to meet them, and he bowed himself with his face toward the ground * * * and he pressed upon them greatly, and they turned in unto him and entered into his house, and he made them a feast and did bake unleaven bread, and they did eat, but before they lay down, the men of the city, even the men of Sodom compassed the house round, both old and young, all the people from every quarter. And they called unto Lot and said unto him, 'Where are the men which came unto thee this night, bring them out unto us that we know them;' and Lot went out at the door unto them and shut the door after him, and said, 'I pray you, brethren, do not so wickedly.'" He then offered to them in lieu of the strangers under his protection his daughters, two blushing maids, surcharged with micturine and acetic acid, who would doubtless have been willing for the sacrifice, judging by their subsequent conduct. But this offer, which was as tempting as it was generous, was indignantly refused. They wanted to get at the orificial surgeon's specialty. To seek, it may be, the philosopher stones—and the band played on. 'Tis needless to add that there was "A hot time in the old town that night."

The case of Onan is familiar to all readers of sacred writ. His sister-in-law, young, beautiful and voluptuous, had scarce laid aside her widow's weeds, when, according to the custom of the country, she became his wife. Her first husband, Er, had done wickedly in the sight of the Lord, and was cut off before she had known satisfaction. No doubt, the young widow was quivering in delightful anticipation. Onan was young, strong and lubberly; she would teach him the sweet dalliance of rosy desire. She would unfold her womanly loveliness before him and make him drunken in a frenzy of delight. She could not wait until the bridal couch was spread, but hand in hand they strolled out under the almond trees. The lap-wings flitted sportively in the rays of the setting sun; all nature was joyous. The odors of the aloe and of the anise ladened the zephyrs with their sweet perfume; the blue-jay (saucy bird of Jericho) was screaming a last adieu to the swallows at their evening play. Upon

a couch of asphodel rested this happy pair. Hand in hand they watched Apollo's golden car slowly disappearing in the west. They talked of love, of the delights of marital felicity, of home and of happiness. He was enraptured by the lovely creature that lay upon the ground beside him, as beautiful as Venus from her morning bath. With throbbing pulses and dilated nostrils he drank in the sweet incense of her presence. A sensuous drowsiness had overcome the twain, but beyond this veil of joy the youth was tortured by selfish remembrance; he knew that, according to patriarchal custom, the offspring gendered of him must bear his brother's name. The thought rankled in his breast, but for this how happy he would have been; it was the fly in his apothecary's ointment; he could not dispel it, and even as he gazed and fondled her who was his own, a resolution as craven as it was ignominious took possession of him. With this thought uppermost in his mind he yielded to the burning passion of this Hebe in human form. For a brief period all else was forgotton, but just when he should have thought of nothing but his present beguilement, he bethought him of his brother's seed, and then and there he committed a sin which has borne his name throughout all the ages.

The earth received what should have been transformed into the first great link in the tribe of Judah, "whose scepter might not depart till Shiloh come," "And the Lord slew him."—Good shot! He ought to have slain him before he worked poor lovely Tamar into a fever of delight, and "quit her cold" when she was most interested. No wonder old Judah, despairing of establishing a race from such spawn, took the job into his own hands.

I mention these things to show that certain forms of sexual dyscrasia have extended through all times and to all peoples. From the Court Mysteries of Siam, with its pleasure boys, to the sexless eunuchs guarding the harems of the Orient. From the unspeakable atrocities of Oscar Wilde to the sexualis pathogenica which ended in the murder of Freda Ward. Nor are these cases alone of interest to the human race. "There are others," among which may be mentioned prevention to conception.

A learned authority, whose name I do not recall, has assured us that this warfare upon the unborn is being practiced to a greater extent than medical men are aware of.

That the so-called contrivances for the prevention of disease are but other means of connubial masturbation, that it is sapping the vitality of the men and undermining the nervous systems of the women, that a large per cent. of the neurotic diseases of the day are traceable to this cause alone, that much of the marital infelicity that is filling our courts with divorces is traceable to incomplete coition.

Incomplete coition in these cases may be where one of the parties (usually the husband) participates in the marital act and the wishes of the wife disregarded. Perhaps she realizes desire when it is too late to be of service. Her organs are left in a congested state, and a douche of cold water drives the hyperemia from the vagina to the ovaries. The practice being often enacted engenders endometritis, leucorrhœa and vaginismus. Cases where the husband is robust and the wife delicate, where she is weak and nervous and he is frequent in his demands upon her strength,

such conditions soon make themselves felt in spinal irritation, neurasthenias and neuralgias.

What cases of retroversion might be avoided if a man would ride higher and go slower; what cases of nervous, debilitated women would be spared if he would court his wife until he had won desire, and not rush matters, until the mouth watered for the fruit. We, who work in gynecology, who observe closely, will frequently benefit our patients by sending them from home for a few months, and giving to their husbands a course of lectures before their return. A woman who is doing the work of her family and suckling an infant, ought to be spared from being her husband's mistress at the same time. A woman, during lactation, needs rest; she needs sleep at nights; she is in no condition to enjoy sexual congress, and it is our duty, as medical men, to tell them so. They look to us for protection in this line—who but we can speak in their behalf? Who but we can point out to them the dangers of making a good woman old before her time? When I go into a house and see a husband, sleek, fat, jolly and hearty, and the wife pale, anæmic and nervous, if she has no definite disease, I can easily guess the cause—incomplete coition. He is killing her. If she has a disease he should let her alone.

I do not desire to be understood as advocating continence among married people, but I do say, and from professional observation maintain, that more women are suffering from an overdose of married relation, than from almost any other cause. Watch the difference in these patients when they have had rest. Look at the rosy cheeked young widow, whose step is as elastic as a girl in her teens. See the bloom of health upon the cheek of the little wife who has returned from her summer vacation. Note the wives of diabetic husbands who have lost desire. Notice the improved appearance of the deacon's wife while you are treating her liege lord for "gravel," contracted in the camp-meeting lavatory. Does it not speak volumes for my theory?

Gentlemen, in your daily practice I beg you, for suffering womanhood, that you will remember the beacon-lights that I have hung along the fogs of this much-neglected subject, and apply your observation to prove that the truths which I have spoken are only half told.

As I think upon this subject, many other phases occur to me which might be interesting. I might discuss, and probably should, the masturbations of the adolescent, the sexual perversions of men, and of women, upon themselves, and upon other animals, but I have written enough for one paper. I feel flattered that the committee on program has seen fit to delegate to me a subject that they felt themselves unable to handle, and I trust that I have discharged my duty to their satisfaction.

Scott County (Iowa) Medical Society.—The Scott County Medical Society met at Scheutzen Park, Davenport, on July 1st. Retiring address was delivered by Dr. Strobehn. Dr. C. H. Preston read a paper on Microbes. Officers elected for the ensuing year were: President, W. D. Middleton; Vice-President, C. H. Preston; Secretary, Adella R. Nichol; Treasurer, Jennie McCowan.

REPORT OF A CASE OF PNEUMO-THORAX WITH PULMONARY CONSUMPTION.[1]

By H. C. Black, M. D., Waco, Texas.

Mr. President and Gentlemen:

A REPORT of the following case is given because it presents some features not met with every day, and because of the happy termination of a very grave condition.

My patient is a young man, now living in Waco, employed as engineer in a large cotton seed oil mill. His brother died of pulmonary tuberculosis at the age of twenty-five; he is a slender, flat-chested man, twenty-five years of age.

He first came to my office two years ago to be treated for tape-worm; at that time saying he had been growing weaker month by month for a year past, with poor appetite and bad digestion. I made a careful physical examination, and found while the respiratory action of lung was weak, there was no sign of tuberculous implantation. The heart's sounds all normal, and heart's action regular, but pulse weak, owing, naturally, to the poverty of his blood in red blood corpuscles. Examination of urine showed nothing abnormal.

I then began treatment for his unwelcome visitor, or tenant, the tape-worm, of which he was freed in due time. He at once improved in strength and remained in good health for more than a year, when in the spring of 1897 he came to me to consult me about a cough, which he had only recently developed, saying it bothered him a great deal, and he was again growing weaker. A physical examination revealed a decided dullness at apex of right lung with prolonged expiratory murmur; his cough was what he called a hacking cough with little expectoration. I ordered him to take creosote pills up to limit of tolerance, which he did, with a decided abatement of cough for two months, when the creosote, began to impair his digestion. I then substituted a tonic of iron and quinine in moderate doses, and did not see him again for one month, owing to the fact I was out of town on my summer vacation.

On August 2d I was called to see this young man, who was in bed with fever 104 degrees, and frequent cough and ejecta of large amount of typical appearing tuberculous sputa. The area of dullness was markedly increased and rales in abundance in apex right lung. He had also in lower axillary region a severe pain with increased respiratory and voice sounds. I suspected pleuro-pneumonia, but there was never any rusty sputum. Three days after his first fever, percussion showed a decided resonance over right chest, which increased gradually and obscured all pulmonary sounds, but gave the peculiar whistling sound which proclaims pneumo-thorax.

The pain in axillary region increased as the distention of chest wall

[1] Read before the North Texas Medical Association, at Dallas, December 14, 1897.

increased, and was relieved only with opiates. Fever was constant, ranging from 102 degrees to 104 degrees, and cough and ejecta of sputa as at beginning.

As the chest wall became fully distended with air it became motionless and the liver displaced downward until the lower border reached the umbilicus. The blowing or whistling sound continued all over the right chest with each respiratory movement. This was his condition one week after beginning of the fever.

My friend, Dr. A. H. Sneed, saw the case with me at this point, and as he fully concurred in my diagnosis, we decided to aspirate, which was done, introducing a small trocar between the ribs in lower axillary region, allowing the escape of imprisoned air in pleural cavity. With each respiratory movement air escaped with some force from the trocar, and the liver gradually ascended until it resumed its normal position under the ribs. The patient could now breathe easily, and both chest walls moved with respiration. The pain in side almost entirely gone. Physical examination now showed rales in right apex, but the blowing sound of escaping air from lungs obscured greatly all other pulmonary sounds. In two days the patient was again in almost his former distress: pleural cavity full of air, liver pushed down, pain again severe in axillary region, and fever again running higher. Aspirated air in pleural cavity again with former result—relief from pain, etc. Again, three days later, found it necessary to introduce trocar into pleural cavity, although the chest distention was not as great as before, nor was the pain so severe. After this last aspiration, patient continued to improve, and fever to decline, until in four days fever had disappeared by lysis. There was still the blowing sound of air escaping into pleural cavity, but very little distention of chest wall, and no pain. Patient about this time discovered himself, by succussion, that he had some fluid in the pleural cavity, which I found on examination to be true; he had developed now into a case of hydro-pneumo-thorax, complicating a case of pulmonary consumption.

My judgment was there was half a teacupful of fluid, and I advised him that it would in all probability be reabsorbed.

Although the pneumo-thorax in a measure obscured pulmonary sounds, yet rales were now plentiful over former area of dullness in right apex, and cough and expectoration abundant. This was August 15th.

To my surprise, instead of growing weaker and dying, he began to improve in every way; cough grew less and less; he began to increase in weight; appetite had to be restrained; his digestion was not as good as his appetite. I now placed him on a preparation called kola-vin, made by Stearns & Co., giving him a dessertspoonful about every three hours during the day. He told me this "wine of cola" seemed to strengthen him almost from the first dose. However that may be, his improvement was marvelous; and in a month from being what I believed a man dying from pulmonary tuberculosis, he was in charge of his engine at the cotton seed oil mill, working hard and eating enough, he said, for two men. By October 1st, or six weeks after his fever disappeared, his cough and expectoration had ceased entirely. On November 15th, or six weeks later, I examined this man again; he had gained in weight twenty-five pounds, and said he was then gaining at the rate of two pounds per week, and

with no cough. Physical examination revealed some dullness in right lower axillary region, which, I believe, is the result of a pleurisy that existed, and caused the intense pain at the beginning of his illness. The respiratory murmur was diminished in sound, but no rales could be heard. He is improving in strength and vigor all the time, and has apparently entered into a new lease of life.

While all clinical signs pointed to pulmonary tuberculosis, I made no microscopical examination of the sputum. I am satisfied that the pneumo-thorax was caused by the softening of a caseous focus or the breaking of a small tuberculous cavity. Osler, among other writers, says: "There are cases of phthisis in which pneumo-thorax, if occurring early, seems to arrest the progress of the tuberculosis." Osler speaks of cases where this occurred in his own practice.

I present a history of this case, because the rapid improvement experienced is, unfortunately, not the rule in pulmonary tuberculosis. As Osler suggests, a pneumo-throrax may exert, in some measure, a favorable influence on phthisis pulmonalis; but the thought has occurred to me that my patient's improvement may be due in great measure to the fact that he passes all day in a uniform temperature that is not uncomfortable, and in an atmosphere laden with a vapor of cotton seed oil, as is evidenced by the fact that during the working hours each employee's face at the mills presents an oily appearance.

Again, the history of this case presents this thought to me: *i. e.*, is there a superior virtue in cotton seed oil in the treatment of pulmonary tuberculosis?

IRON AND MANGANESE.

By G. Howard Thompson, M. D.,

Professor Materia Medica, St. Louis College of Physicians and Surgeons.

THE physician in active, general practice is called upon constantly to treat complications symptomatic of anæmia. This condition of depravity of the blood may, in itself, be only a symptom, but must, nevertheless, be met and controlled as a symptom, if it is incidental to an incurable disease. As an illustration: where it is caused by syphilis, specific treatment usually controls it; but where it is caused, for example, by valvular disease, heart stimulants are not so likely to control it as agents directed against the anæmia itself, which improve the blood and strengthen the muscular walls of the heart. Anæmia is a condition of the blood characterized by a deficiency in the quantity of hæmoglobin. Either the normal proportion of red blood cells is absent; or being in normal

amount, they are deficient in hæmoglobin, as in what is called chlorosis. Normally, 230 grains, by weight, of red blood cells contain one grain, by weight, of iron, and for every twenty grains of iron, one grain of manganese. This being the case, every case of anæmia calls for an agent capable of increasing the hæmoglobin in the blood, either by increasing the healthy red cells to the normal number of health, or by increasing to the normal amount the deficiency of hæmoglobin in the cells themselves, which, though in normal quantity, are lacking in this essential; or, as may possibly be the case, by increasing both the number of cells and their proportion of hæmoglobin. Iron is a therapeutic agent capable of securing both of these results in most cases where it can be borne without producing untoward symptoms of its own. Where iron itself fails, the addition of manganese seldom fails to supply the missing requirement.

All of the potent United States Pharmacopœia preparations of iron are liable to produce untoward effects in many patients, such as loss of appetite, diminished peristalsis, gastric distress, frontal headache, constipation, and vesical irritation, etc., and, as a result, without exerting a single beneficial influence on the anæmic process. As iron is absorbed in the form of an albuminate or peptonate, the old preparations must, of necessity, be converted before they are assimilated, which taxes the powers of the stomach and intestinal tract. They are first converted into chlorides in the stomach and into sulphides in the duodenum, which results in a waste of almost the entire quantity taken, thus effectually defeating the purpose for which the remedy was prescribed.

In order, successfully to treat the various complications incidental to the anæmic state which may be caused by anæmia or which may cause this condition, it is necessary to employ a preparation of iron which will be absorbed beyond a doubt. Such a preparation has been brought to the profession in the form of liquor ferri et mangani peptonati (Lehn & Fink), a preparation of the peptonate of iron and manganese which I have found, after long and patient investigation, to possess all of the advantages and none of the disadvantages of the United States Pharmacopœia officinal preparations. I began its use last fall, and have continued using it down to the date of this writing (July 15, 1898).

Case 1.—Was Mr. P., a student of medicine, who consulted me in great apprehension lest he had a chancre. His physical condition was one of pronounced anæmia, though I cannot state to what extent, as I did not estimate his red blood cells. On the inner surface foreskin was an induration of the nature of a soft chancre. I advised the use of simply a dry talcum powder, twice daily, but ordered a tablespoonful of liquor ferri et mangani peptonati (L. & F.) every three hours, to see if his system would not develop the power to resist and throw off the local infection. I watched the patient carefully, inspecting him every day. The ulcer was arrested in about three days, and in three days more showed signs of healing, and at the end of three weeks was entirely cured. No eruption ever presented itself nor any indication of a specific infection. This patient improved in every way. His appetite improved, his lips and cheeks took on the ruddy hue of health, and he increased about ten pounds in weight.

Case 2.—Miss M. A. H., by profession an actress, consulted me in January for bronchitis. She presented a condition of profound anæmia,

though she had lost no weight. On interrogation, she claimed to have been anæmic for a year and a half, ever since she recovered from an attack of typhoid-pneumonia. She was subject to attacks of acute inflammatory rheumatism. Her heart was not involved, organically. Examination of her blood showed, approximally, 2,800,000 red blood corpuscles to the cubic centimetre. Suitable treatment for her cough was immediately instituted, in addition to which liquor ferri et mangani peptonati (L. & F.) was prescribed in the dose of a tablespoonful after each meal. Within two weeks her cough was well, and an examination of her blood showed an increase in the number of red cells to 3,450,000. The iron and manganese was continued, and two weeks later another estimation of the red cells was made, showing a further increase to 3,950,000. The tonic was continued and examinations made at intervals of two weeks, each time showing a substantial increase over the previous counting, as follows: 4,240,000; 4,500,000; 4,800,000; 5,000,000, etc., beyond which the red cells did not seem to increase. In the latter part of March the patient began neglecting her medicine, saying that she felt better than she had felt in many years, and sought an engagement in a local stock company. Her appearance no longer showed the least evidence that she had ever been anæmic, and she looked the picture of health. I met her again, recently (in June), and made two more estimations of her red cells, at intervals of two weeks, and found that there had been no substantial relapse, the figures being 4,940,000 and 5,000,000 per c.c., and she reported not having been sick in the meantime.

CASE 3.—Miss K., aged twenty-one, had been suffering from amenorrhœa with leucorrhœa for three months. Her family history was good. No local examination was made, this being deferred to observe the effect of internal treatment. She was somewhat irregular with her menses and was very anæmic, though otherwise of strong and robust build. She had lost no flesh and complained of no other symptoms. On February 3d, I examined her blood and found, on estimation, about 3,400,000 per c.c., and immediately put her on liquor ferri et mangani peptonati (L. & F.), a tablespoonful an hour after each meal. She was due to menstruate on the 16th, having skipped the previous period with nothing more than ovarian neuralgia. On February 16th, her menstruation set in and she experienced a substantial flow for two days. Just previous to this, on the 15th, an estimation of her blood cells indicated about 3,750,000 per c.c. Her bowels became more regular, her appetite improved, and her complexion looked healthier. On the 3d of March, an examination showed 4,200,000 per c.c., and on the 15th, the day before her expected menstruation, the estimation showed 4,450,000 per c.c. The next day her menstruation appeared and lasted four days with normal flow. Her health has been good ever since and her menstruation regular and normal.

There is no doubt of the power of this preparation to rapidly increase the red blood cells and hæmoglobin in cases of anæmia and chlorosis. It has never, in my experience, caused constipation; on the contrary, when given for anæmic conditions incidental to pelvic disease, the accompanying constipation has frequently been relieved without the additional use of laxatives. It has never caused headache or loss of appetite in any case

that I have handled. It has always improved the appetite, restored lost color, increased strength and weight. Its taste is not objectionable and patients readily acquire a liking for it. My best results have been obtained by the administration of a tablespoonful an hour after each meal. 615 Century Building, St. Louis.

A FEW CASUAL OBSERVATIONS ON THE EFFECTS OF THE MAUSER BULLET.

By LLEWELLYN P. WILLIAMSON, M. D.,

Acting Assistant Surgeon, U. S. Army.

UPON observing the wounded in our Santiago campaign, the fact which first impresses one is that a Mauser bullet may pass through almost any part of the body without a fatal, or even a serious, result; and the next is the almost entire absence of pus.

That the Mauser is an exceptionally humane bullet there seems no apparent doubt, and yet much depends on the range. Experiments on animals have shown that at short distances, up to about 800 yards, the bullet has a very destructive effect; and again, from 1200 yards and more, the effect is equally destructive, and a wound is always accompanied by severe laceration of the tissues. At a medium range, however, from 800 to 1200 yards, the bullet makes a small, clean, penetrating wound, which heals rapidly, with little suppuration and little danger to life or limb.

Most of those men whom I observed were shot at a range of about 1000 yards, and the character of the wounds coincided remarkably with those produced in the experiments at similar distances. Both the wound of entrance and that of exit were small, and though the course of the bullet was often erratic, there was little or no tearing of the tissues; and where a bone was injured, the comminution was slight. In exception to the above, I have to note one case, that of a soldier shot in the right foot, the bullet entering just at the outer malleolus and passing downward and inward. In this case there was terrible comminution, the bones being broken up into such small fragments as to require amputation. I could get no definite information as to the range at which this man was shot.

The number of apparently fatal penetrating abdominal wounds which recovered without operation was truly remarkable. A "first aid" dressing was usually applied to these wounds on the field or at the first dressing station, and the patient sent down to the Siboney hospital or the hospital ship *Relief* in a wagon, a distance of ten miles, over rough mountain

roads. When these patients reached the *Relief* they were in the best of spirits, and stated that they felt absolutely no ill effects from their wounds whatsoever.

While I did not see these patients until some time after they were shot, the surgeons at the front told me but few suffered from shock to any extent. Examination on the *Relief* showed a small hole in the abdominal walls, marking the entrance of the bullet; and in most cases the wound of exit could also be found. These wounds were usually healing rapidly without suppuration. There was absolutely no tenderness, no tympanitis, no signs whatsoever of peritonitis. The bowels were moving regularly, the appetite good, and the patients would acknowledge that they had eaten army rations without inconvenience ever since they were wounded. Whether or not there was any injury to the intestines, I am, of course, unable to say; but from the position of the wounds, it would seem impossible for them to escape. In one case the wound of entrance was between the seventh and eighth ribs, in the mammary line, and that of exit in the right axillary line, at about the same level, and the bullet must have passed directly through the liver; and yet this patient, a lieutenant of the Rough Riders, was walking about, both wounds healed, and clamoring to be returned to duty when I saw him, five days later. Another lieutenant of the Rough Riders was shot entirely through the body, the bullet entering below and just to the left of the umbilicus and emerging in the left lumbar region, apparently doing no harm to the viscera. Although this patient was confined to bed, as a precautionary measure, he was practically well when started north on a transport, eight days after being wounded, and, I have since heard, walked from the ship when it landed in New York. And I might mention several similar cases which would undoubtedly have proved fatal with the ordinary bullet, but which made an exceedingly rapid recovery without operation.

Out of probably half a dozen penetrating wounds of the lung, in only one did I see any ill effects following. This case developed a considerable hæmo-thorax, which required operation to relieve it. In none of the other cases was there any hemorrhage, pain or dyspnœa, and upon auscultation the lung appeared perfectly normal. This appears remarkable to any one who has seen the effects of wounds inflicted on the lung by the ordinary pistol or rifle bullet.

But few head injuries came under my personal observation, but other surgeons told me the mortality percentage in this class of cases was considerably less than usual. Dr. Ireland reports the case of a man shot in the left frontal region, and upon whom a "first aid" dressing had been applied, who walked from the field to the Siboney hospital, a distance of ten miles, and arrived feeling fairly well, but presenting marked symptoms of aphasia. He was operated upon by Dr. Ireland, three days after receiving the injury, a large, depressed fracture being found over Broca's convolution, and the wound dressed. He was immediately sent north on a transport, and when next seen by Dr. Ireland, at Camp Wikoff, yesterday, he reported that the dressing applied after the operation had not required changing until removed for good, the aphasia had promptly disappeared, and he had never felt any inconvenience from his wound. A most interesting case was that of a captain in the regular army, who did valiant work

at San Juan. He was shot right through the head, the bullet entering just behind the external angular process on the left side and emerging at a corresponding place on the right side. Both wounds healed in a few days, but the sight of the left eye was destroyed, the bullet probably cutting the optic nerve. This patient was not confined to his bed for a day.

Gunshot fractures were, of course, common, but, as before mentioned, the comminution was usually slight; and notwithstanding the jolting ride of ten miles in an ambulance over rough roads, and the handling necessary in putting them aboard the transports, the results were uniformly good.

For some reason, the slight laceration of the tissues or the quickness with which a sterile "first aid" dressing was applied, the suppuration was slight. Of course, we had some cases which suppurated badly, but, as a rule, severe suppuration was a rarity; and those cases which did suppurate were usually the ones in which the dressings were changed too often or those in which there was more than the usual amount of laceration. It would be idiotic to say that all the wounded got well and that all the injuries were mild ones. The fact that there are a good many graves in Cuba and that a corps of surgeons were kept busy operating, refute this at once; but, taking into consideration the number of wounded and the location and apparent gravity of the wounds, the percentage of recoveries is remarkably high, and is one which I do not believe could have been attained, no matter how efficient the surgical aid, had any other bullet than the Mauser been used.

Our most severe cases, and the ones almost invariably fatal, were the spinal injuries; and of these we had quite a number. The paralysis, varying in its extent according to the location of the injury, and the bed-sores, which invariably made an early appearance and spread with great rapidity until they attained the size of a pie-plate and exposed the sacrum, made these cases peculiarly distressing. But these patients were universally cheerful and complained of no pain, although they nearly all died inside of ten days. One case, which was a particularly severe one, and which did not die, however, was that of an infantry lieutenant who was shot in the neck, the bullet lodging in the spine at about the fifth cervical vertebra. It was pitiful to see this poor fellow lying on his cot totally paralyzed from the neck down and unable to speak above a whisper. All of us who saw him thought he would surely die—and death would really be a blessing to him; but I heard from him the other day, and he is improving steadily and has already regained the partial use of his right arm and leg.

The number of these spinal injuries was rather large proportionately, and, by their seriousness, in direct contrast to another class of injuries, which were also large proportionately. These latter were slight wounds of the heel and sole of the foot, of which there were quite a number. It was rather amusing to hear a patient who was wounded in either of these places explaining "how it happened;" and while I know brave men who were thus wounded, still, those are unfortunate places in which to be hit.

Seriously, there is no question as to the bravery, both of our own and the Spanish troops; and though the campaign was a short one, it was a very serious one in the number of wounded, and but for the Mauser bullet would have been a more serious one in the matter of deaths.

EXOSTOSIS OF EXTERNAL AUDITORY CANAL.

By M. A. GOLDSTEIN, M. D., St. Louis,

Professor of Otology, Beaumont Hospital Medical College; Consulting Aurist Alexian Brothers' Hospital; Aurist to Sisters of St. Joseph School for the Deaf, etc., etc.

OSSEOUS growths in the external auditory canal are of quite frequent occurrence, and become of special interest mainly in consideration of their etiology and the various operative measures employed when their removal is indicated.

Unless these newly developed bone masses become of sufficient size to cause intense pain by direct mechanical pressure, offer obstruction to the free discharge of inflammatory accumulations in the tympanic cavity, or seriously impair the hearing by functioning as a foreign body, or influencing by pressure or adhesions any portion of the sound-conducting apparatus, a surgical interference may not be deemed an absolute necessity.

The etiology of the majority of cases of exostoses of the external auditory canal is often shrouded in mystery.

According to many authorities, syphilis and the rheumatic and gouty diatheses play important *roles* as causative factors. Heredity is also a factor frequently noted. The most tangible and comprehensible cause, yet one not often met with, is that of a long-standing direct irritation and chronic inflammatory condition of the walls of the external auditory canal.

The text-books classify osseous growths in the aural canal into (1) congenital exostoses; (2) acquired exostoses.

Much interesting information on this subject, especially referable to the etiology, has been gathered by the extensive researches of Seligman, Wyman, Blake, Virchow, and others. The exostoses found by Seligman with such relative frequency in the examination of the crania of North American Indians seem to belong, with perhaps few exceptions, to the class of *congenital* growths, as distinguished from *acquired* exostoses.

Blake examined one hundred and ninety-five skulls of the mound-builders of Tennessee, now in the collection of the Peabody Museum in Cambridge, Mass. In thirty-six, exostoses were found in one or both canals, as well as narrowing of the canals.

Moos does not endorse the syphilis, rheumatic and gouty diathesis theories. He notes in the cases that came under his observation that the point of development of the exostosis was invariably from the upper wall of the external auditory canal, almost at the distal extremity. He advances the opinion that these growths are the result of irritations occurring during the development of the temporal bone: the uniting of the annulus tympanicus with the squama.

Virchow, in the examination of one hundred and thirty-four Peruvian

Indian skulls, found oxostoses in eighteen. Contrary to the opinion advanced by Moos, he describes the outer part of the osseous external auditory meatus as the point of predilection; he does not cite a single case in which the exostosis developed at the margin of the pars tympan, as noted by Moos.

The conclusions thus far reached, then, indicate that even the special and detailed investigations of careful and experienced observers are at variance.

That the frequency of exostoses in the aborigines of America may be due to certain race peculiarities, such as artificial elongation of the skull induced by pressure during infancy, seems possible, and could be further substantiated by the statistics furnished by Bezold.

In the examination of one thousand nine hundred and eighteen German school children, Bezold does not record the existence of a single case of exostosis.

Welcker, on the contrary, claims "that these exostoses are not extremely rare among the cultured population of Europe, and, as shown by the text-books and C. O. Weber's collection, the external auditory canal is a favorite position for them."

Retaining the classification of exostoses into congenital and acquired, we note in recent otological literature (with the exception of the investigations of the crania of aborigines) the extreme rarity of the congenital form.

Contrary to the rule in other parts of the body, exostoses in the auditory canal are generally painless. The point of origin in the development of the case herewith recorded has been definitely determined to be at the outer portion of the osseous external meatus, close to the junction of the cartilaginous with the bony portion of the posterior wall of the auditory canal.

Henry C., aged twenty-three years, presented himself for treatment with the following history: Three years ago patient suffered with an acute earache of two or three weeks' duration. The aural canal was swollen and painful on slightest pressure; the sensitive area included the domain of the facial nerve of the affected side, as indicated by impaired motor function; hearing was considerably impaired. Several acute exacerbations recurred in this series of symptoms, each of about three days' duratien. Some relief was gradually afforded by constant applications of dry heat and warm instillations in the ear.

Convalescence being established, patient was then annoyed by frequent itching sensations in the aural canal, which he temporarily relieved by the counter irritation of matches and toothpicks vigorously applied. Even this pruritic attack subsided in a few weeks, and no further attention was given the ear until shortly before his application for treatment, when he complained of a disagreeable feeling of obstruction, intense deafness, and occasional pain in the left ear.

On examination I found the left ear assuming a position at right angles to the side of the head; the orifice of the canal was very large, filling up its entire lumen; and appearing within half an inch of the external opening of the canal was a rounded mass, offering considerable resistance to the touch of the probe, pale red in color, somewhat painful on pressure.

With a very thin probe I was able to circumscribe the convex surface of the tumor, tracing its point of fixation to the posterior wall of the auditory canal.

As to the character of the growth, nothing further could be determined; I supposed it to be a large, dense, fibrous polypus, and made preparations for its removal accordingly. The patient was anæsthetized, as even the manipulation of examination caused considerable pain and vertigo. A number four piano wire was passed around the tumor, and a very firm traction applied to a Wilde-Blake snare. When the wire was drawn taut about the tumor it snapped as though it were a cotton thread. Three other wires were adjusted, with the same result. My suspicions were now aroused as to the nature of the growth. Incising the integument covering of the tumor, the point of the knife met with much resistance; this, on closer examination, revealed its bony structure.

From the large size of the snare loop I judged the tumor to be of considerable depth, probably extending the entire length of the osseous portion of the canal, and perhaps involving the annulus tympanicus, with attachments deeper in the delicate structure of the petrous bone. The question suggested itself: would the application of mallet and chisel, under the circumstances, be a justifiable and advisable one?

Removal with the mallet and chisel has frequently been resorted to, but the difficulties of the operation, the small working area in the aural canal, the delicacy of structure of the surrounding tissues, the concussion of the mallet in this area, all constitute decided objections to such a procedure.

The most successful operative results have been attained with the dental engine and drills. Obstruction of the field of operation by blood and bone dust thrown forth by the drill often make the use of the dental engine somewhat impracticable.

However, simple measures in surgical technique should always be given the preference over complicated mechanism whenever applicable.

The working area for the introduction of an instrument behind the tumor was limited, but after several attempts I succeeded in placing a long, shallow, concave curette over the convex surface of the tumor, and with a gentle, firm leverage the mass was suddenly loosened, and carried with the curette out of the canal. The slight hæmorrhage ensuing was easily arrested by brief application of a gauze tampon. The canal was found fairly clear. The shape of the walls appeared somewhat distorted; the portion of the drumhead which was visible appeared congested and irregular in surface, with a medium-sized perforation in the posterior inferior quadrant. The canal was irrigated with a warm three per cent. carbolic acid solution, dried, dusted with iodoform, and lightly packed with gauze.

The differential diagnosis of this case presented some difficulties. As the tumor completely filled the lumen of the canal, very little could be determined as to its mobility, area of attachment, and consistency. Fortunately, the elasticity of the anterior wall of the canal permitted circumscribing with the probe and the introduction of the flat curette. The pedunculated character of the growth was determined only on examination of the mass after its removal, and an inspection of the canal wall to which it had been attached.

As a suppurative otitis media existed at the time of operation, the tumor was constantly bathed in pus, and presented the appearance of a large, hard, fibrous polypus. Again, as pain was one of the principal symptoms, and the complaints of the patient only of a few days' duration, and the interior of the canal presented a picture of congestion and inflammation, it might also have been reasonable to suppose that we were dealing with a large furuncle in the depth of the canal.

Only after the outer covering of the tumor had been incised and the underlying bony tissue revealed was the real character of the growth established.

On examination, the exostosis was found encased in an elastic capsule closely adherent to the bone. The outer surface of this capsule appeared to be epithelial in character. With some difficulty the capsule was stripped from the underlying bone and exposed to view. A large ivory exostosis, irregular in surface, with several small but well-marked pedicles on the side where it had been attached to the wall of the canal, were seen.

The tumor measured one and a half centimetres in its long diameter and one centimetre in its short diameter. The illustration represents the

Front View.

Side View.

specimen in front and lateral view, actual size, after stripping it of its fibrous envelope. The net weight of the exostosis was five hundred milligrammes. One of the special features to be observed in the development of this exostosis was the large size of the growth, dependent for its attachment on two slim, delicate pedicles.

Considerable inflammatory reaction followed the removal of the tumor, the patient suffering pain for several days; the canal was much swollen; a severe otitis media with profuse discharge, and of about ten days' duration, was also a disturbing sequel. The mild dry antiseptic treatment, however, soon evinced its restorative influence, resulting in a healthy appearance of the meatus in three weeks. Hearing tests indicated an almost complete restoration of the functioning power of the affected ear.

ALOPECIA AREATA.

By A. H. OHMANN-DUMESNIL, St. Louis, Mo.

AMONG the diseases of the skin which are characterized by affection of the hair, none has, perhaps, attracted so much attention in late years as alopecia areata, or, as it is better known to others, area Celsi. It was the vitiligo of some of the older writers like Cozenave; and even in their time it had already awakened some considerable interest. Within a very few years the French, especially, have devoted much time and study to it. To them it is known as *pelade;* and the journals teem with literature on the subject. Alopecia areata is a variety of baldness which possesses quite a considerable amount of interest, chiefly on account of its etiology and the methods of properly treating it. The trouble is far from being a rare one; in fact, it is not of as infrequent occurrence as we might be led to suppose, from the statistics which have been published. The cases which do occur, in a large part, never apply for treatment and to endeavor to even estimate its comparative frequency, relative to other diseases of the cutaneous system, would well-nigh be an impossibility. Again, in many instances the trouble is so inconspicuous that the subject of it is either unaware of its existence, or, if recognized, appears so trifling as not being worthy of any attention being paid to it. Another class of patients who are troubled with the affection apply to general practitioners, who summarily dispose of a case by stating either that it is incurable, or that the patient will outgrow it in time, both of which statements are incorrect. There is no doubt whatever that the trouble can be cured and that no trace of its former existence will remain. A well-directed method of medication will bring about a good result; and the most desperate-looking case is not hopeless, by any means. That a patient will outgrow the trouble cannot be maintained with truth, any more than such a position can be held in regard to other diseases.

The appearance which the disease presents is one which is rather striking. It consists essentially of one or more limited areas of denuded integument confined to the scalp or face. Of course, other regions which are hairy, such as the pudenda, are also likely to be attacked by this process. The areas at the beginning of the process are roundish or ovalish. A good example of a single lesion is shown in Figure 1. It will be noted in this that the edges are sharply cut and the affected area quite bare. The patient was quite young and stated that he had been made aware of the trouble but about a month previous to the time the picture was taken. He never paid any attention to it, as it did not annoy him in the least. What he applied for treatment was a chancroid, which was much more important to him in several respects, and more apt to attract his attention, both from the pain

present and the situation of the lesion. The alopecia areata had never caused any itching. The patient was well built and strong, and suffered in no way from any general affection or dyscrasia. He could give no adequate reason for the appearance of his scalp trouble, and questioning could elicit no answer which would satisfactorily explain the occurrence. All that could be learned was that it simply came and caused no inconvenience whatever. Treatment for the alopecia was refused, and as soon as the chancroid was well the patient disappeared from observation. Whilst being treated for his venereal affliction the bald spot did not increase in size, nor was there any perceptible loss of hair at its periphery. So far as the

FIG. 1. Alopecia Areata. (Single Small Lesion.)

patient knew, it had been at a stand-still for quite some time. Cases of this sort, giving the same kind of a history and exhibiting but one roundish lesion at the nucha, are quite common enough. The inability to give any satisfactory or definite history is not important enough to base an assumption that the disease is idiopathic or spontaneous; for, in some at least, it is sufficiently determinate to be able to state with some degree of certainty what the active or proximate cause of the trouble is in a certain determined case. It is only of late that any attempt has been made to enter into a systematic study of these cases; and we may expect, at some future time, to be able to arrive at some conclusion as to the cause, which shall be more exact than any yet formulated and be, at the same time, susceptible of demonstration and proof.

An irregular form of the patch of the disease occurs in cases in which several areas are involved. These are not only the result of two or more patches coalescing to form a larger, more irregular one, but they often occur in this irregular form at the beginning of the trouble. A case of

this character is well shown in Figure 2. The photograph was taken a very short time after the disease first made its appearance, and the rapidity with which the hair fell out may be easily surmised from the fact that denuded spots so rapidly approached one another and became fused, as it were, in large bald areas. The subject was a very young man, who was struck on the head by shingle which fell on his hat edgewise and contused the scalp. In this case there seemed to exist some causal relation between the injury and the scalp trouble. At about the same time I saw a man who had a patch of alopecia areata, following a fall from a ladder. I have reported both cases in full elsewhere.[1] The first case is of more than ordinary interest. The patient did not know that he had the trouble

FIG. 2. Alopecia Areata. (Multiple Confluent Lesions.)

until attention was called to it by members of his family. The disappearance of the hair progressed rather fast, and it was some little time before it ceased to do so after treatment had been instituted. Progress was slow and the patient's father wrote to him to join him in Germany, where he was treated by a number of well-known dermatologists. In about a year he returned with his scalp totally denuded of all hair, compelling him to wear a wig. This was certainly far from encouraging, but he returned to me, and in about three years he had a return of quite a luxuriant crop of normal hair, nearly six inches in length. This latter is merely mentioned to show that no case is entirely beyond all hope of securing a return of the hair, and also to show the fallacy of the theory that all cases of

[1] *St. Louis Clinique*, February, 1890.

alopecia areata are of bacterial origin, upon which assumption the patient had been unsuccessfully treated abroad and kept under perfect control by becoming an inmate of private hospitals. When the etiology of the disease is considered, further on, the pertinence of these remarks will become clear.

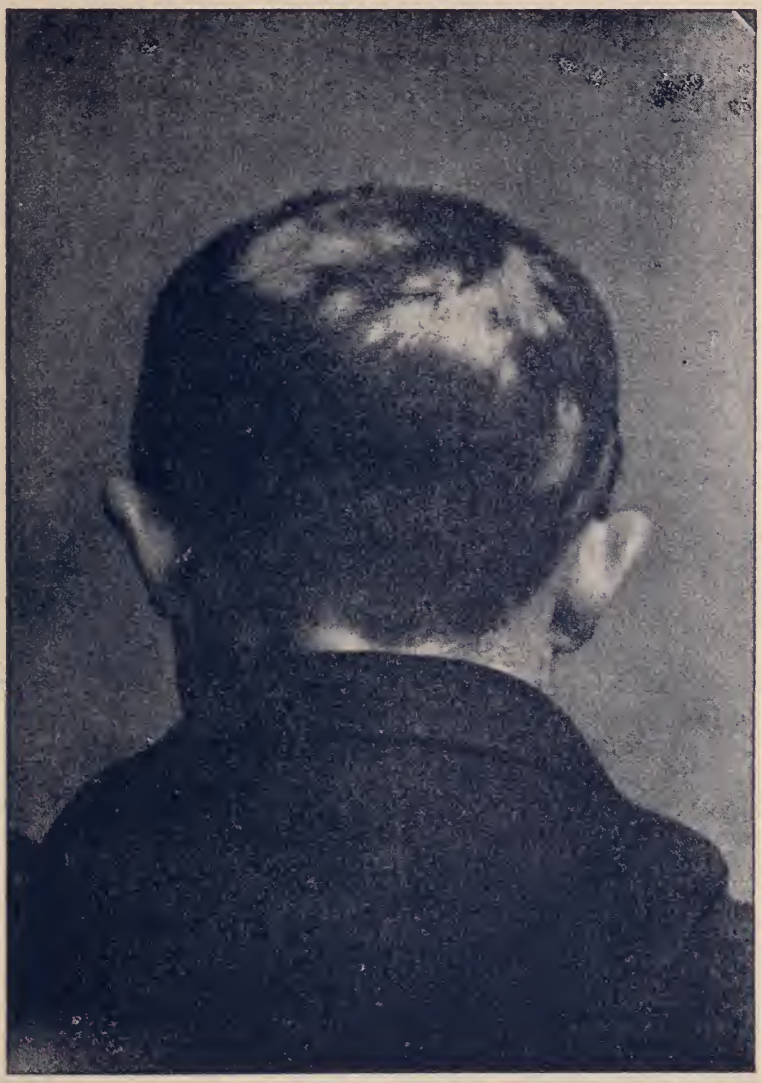


FIG. 3. Alopecia Areata. (Old Standing Case.)

It is contended by some that every case of alopecia will recover spontaneously and a new growth of hair will declare itself. This, however, is a fallacious idea. It is true that such does occur in some cases; but it is equally true that if curative measures are not adopted, the hair will never reapper; and it is no uncommon thing to see such cases become, to

all intents and purposes, no longer amenable to treatment. All measures which, if applied in time, might have done some good will be found to be entirely ineffective for this purpose. In these cases a certain area becomes denuded of hair, progresses up to a certain point and then remains at a stand-still, and the individual so affected then has a permanent alopecia. Such a case is depicted in Figure 3. The distribution of the remaining hair is very peculiar and the condition which is shown had existed for a number of years, the subject wearing a wig and not caring for any treatment whatever. As the wig concealed his trouble, he was satisfied to let it go at that.

It may not be inappropriate to say a few words in the way of a general description of alopecia areata. From the rather incomplete descriptions given of the above cases, a great deal may be surmised. The areas are generally roundish or ovalish in contour; but cases are seen in which they are linear, triangular, or assume various other forms of greater or less irregularity. The loss of the hair is quite sudden and takes place, seemingly, in a few hours. Patients will state that everything seemed perfectly natural upon retiring at night, and the next morning they combed out the hair in one or more spots, there being apparently nothing to hold it to the scalp. The area which is affected is completely denuded of hair, as if such had never existed upon the bare spot. Yet, if a magnifying glass be used, it will be found that the openings of the hair follicles can be made out quite distinctly. The number of areas affected may be limited to one, or may be numerous, as shown in the foregoing illustrations. It is far from uncommon for the process to extend from one spot to another, thus giving rise to extensive bald areas, which lend a rather unsightly appearance to the scalp. It will be noted, also, that in those instances in which the areas are linear or triangular the course of nerves is followed, just as in the round or oval forms, or have areas which suggest the end distribution of trophic nerves. The areas may be symmetrical or not. In a case which I observed some years ago the areas were symmetrically distributed on the face of the man and were of equal size. It is not so rare to see but one on one side of the head; and it is much more frequently upon the temple that it is seen to retain its roundish appearance and persist in that form. It is at the occiput, however, that this symmetrical form is more apt to be encountered; and it is a strange coincidence in my practice that all the unilateral occipital cases in which only one lesion which I have had occasion to observe occurred in medical students. The trouble, of course, occurs in all conditions of men and in all avocations. One peculiarity which is observable in the disease is the fact that the young seem to be affected in larger proportion than the old, and males greatly outnumber females in the frequency in which they are affected. Ordinary alopecia is by far of greater occurrence in women. As stated at the beginning, alopecia areata is not common in this country, but seems to be so in France.

The appearance of the denuded area varies in according to the particular variety of the trouble. For, it must not be forgotten that there is a non-parasitic and a parasitic form. In the former the bald skin has a very striking appearance. It has a smooth, very white, glistening appearance, which is very suggestive of polished ivory, and looks as if a plate of that material had been let in in the skull. All the hairs at the

periphery are, so far as appearances go, perfectly healthy and normal, both in length and color, and, upon trying them, seem to retain all their resiliency upon traction. No objective symptoms are complained of, and none can be elicited by interrogation. In fact, it would seem to be simply a sudden dropping out of the hair; and it is this very circumstance which causes the disease to be so alarming to some patients and to make others so indifferent to any possible bad consequences. The latter, however, is much more apt take place in those cases in which there is but one lesion which tends to remain stationary; when a number exist which spread or coalesce, there is much more alarm felt on account of the fear of total baldness establishing itself. In the parasitic variety, on the other hand, it will be found, upon making a close examination, that the denuded area is not characterized by that shining white appearance just described. Here the area has a dull appearance and a tendency to a very slight blueish tinge. Moreover, the surface is covered with exceedingly fine scales, which are derived from the honry layer of the skin. If the surface be brushed with a brush which is fine but has stiff bristles, the scales will separate and the entire condition becomes very suggestive of pityriasis capitis. Here and there throughout the area may be found the stumps of broken-off hairs; or small black points, where hairs have broken off at the scalp or been scratched and cut by the nails, may be observed. At the periphery there are hairs which are broken off and which have lost all their luster, looking dead, brittle, and indicating in a manner that does not admit of the possibility of a doubt the parasitic nature of the disease. Yet it is not ring-worm, as the tricophyton cannot be discovered, and the objective symptoms differ radically from those oberved in tricophytic disease of the scalp or beard.

If we follow the natural evolution of the disease, another and a marked difference is to be noted in the course of the two varieties. In the non-parasitic variety there exists a tendency to spontaneous recovery; or, if there be no recovery, there is at least a period when it comes to a standstill. After a greater or less interval of time hairs will begin to grow over the denuded area, and they are generally of a white color. After these have attained a certain growth they are shed and another crop immediately follows. This may occur but once or it may take place several times; and finally a permanent growth of the normal color makes its appearance. This is as luxuriant as it formerly was, and in some instances it is still more so, a heavier growth taking the place of one which was becoming thin. In the parasitic form, on the other hand, the bald spots have a tendency to continually enlarge and new ones to show themselves, the latter owing their origin to auto-infection. Not only is this the case, but other individuals are liable to contract this form, whereas the non-parasitic variety always remains limited to the affected individual. In both forms the eyebrows and the eyelashes may become affected in a manner similar to that of the scalp and beard and other hairy parts of the integument.

There is no difficulty in assigning an adequate cause for the parasitic variety. Upon this point all authorities are agreed. In the non-parasitic variety, however, there does not seem to exist a consensus of opinion, although there really seems to be but little doubt as to its nervous origin. The cases are certainly sufficiently numerous and well attested in which

an accidental or surgical traumatism has produced the trouble. Max Joseph produced it experimentally in cats and guinea-pigs. In a number of cases very distinct and well-defined neurotic disturbances have been made out; and upon their subsidence or disappearance marked improvement began. There are some cases, it is true, in which no possible adequate cause can be clearly established. Be this as it may, the treatment seems to be always successful, although more markedly so in some cases than in others.

The treatment of non-parasitic alopecia areata should be both local and general. As a general nerve tonic nothing excels a phosphorous pill (gr. 1-50), given during each meal. On the other hand, if it be found necessary or desirable to give a nerve stimulant, the following will be found an eligible preparation:

℞ Strychniæ sulphat.....gr. j
Ferri redacti.....ʒ j
Quiniæ sulphat.....ʒ ij
M. Et ft. caps. No. 60.
Sig.—One capsule after each meal.

General nerve tonics may be given. In addition to this, the following powder, taken in water at bedtime, will tend to hasten the return of the hair:

℞ Pilocarpin. muriat.....gr. iij
Sacchari lactis.....ʒ ijss
M. Et ft. chart No. 30.

Locally, various methods may be successfully employed. The application of cantharidal collodion once or twice a week to the affected areas is an excellent measure. Instead of this, pure carbolic acid may be thoroughly applied with the same frequency. In either case, a bland dressing should be applied twice daily in the intervals elapsing between the stronger treatments. One such as the following will be found serviceable:

℞ Cocaini muriat.....gr. iv
Bismuth subnitrate.....ʒ j
Ung. aquæ rosæ.....ʒ j
M.

In the parasitic variety the hair should be shaved for a distance of a half or one inch around each affected patch, and, after thoroughly cleansing with spiritus saponis kalinus, an ointment like the following, well rubbed in twice daily, will be found not only very useful, but will procure good results:

℞ Hidrarg. bichloridi.....gr. j
Laynolin puriss.....ʒ vij
Ung. aquæ rosæ.....ʒ j
M.

If it be preferred, other parasiticides may be used; but to be efficient they must be used sufficiently strong.

When an apparent cure has resulted in either form of alopecia areata, it will be found of advantage to continue the use of the following, as it is a good stimulant and promotes the growth of the hair:

℞ Resorcini resublimat. ℥ j
Betanaphthol ℈ j
Tinct. cinchon. co ℥ iij
Spts. myrciæ ℥ vj
M. Sig.—Apply twice a day.

No matter how marked a case may be, nor how much area is involved, there is no reason why it should not yield to proper treatment. It is true that it must be more energetic in some cases than in others, and no faint-hearted or half-way measures will ever succeed.

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By Dr. Warren B. Outten, of Saint Louis.

[CONTINUED FROM THE AUGUST ISSUE.]

CHAPTER VII.

A Study of Nature's Deepest Truths, as Found in the Mind.——Quality and Quantity of a Brain Determines the Worth of a Soul.——The First View of the Eccentric Man.——"The Greek Saith that Impudence is a God."——Description of the Eccentric Man by Theo Celsus.——His Royal Surroundings.——His Action; and His Love for Proverbs.——He Relates His Litigious History.——He Thinks He is Like a Flake of Eiderdown That to the Air is Given, Which Does as Easily Alight Upon Base, Doubtful Soil, as Upon Beauty's Bosom.——A Bombastesian Discussion Concerning Eccentric Persons, "Cranks," and Maniacs.——The Degenerate: Morbidly Peculiar, Mentally Unbalanced; a Person Whom Misfortune Neither Teaches Nor Makes Wise; at Best, He is But a "Crank."

'TIS any kind of a world, to any kind of a brain! For it would seem that each man makes the world as his brain ordains. Hence, a man's opinion is but his mind's product, and this mind's product but the accident and sequence of the world's circumstance. Anon, a man's opinion of the world is compelled to this world; and this opinion is amongst the insufficient things of the universe. But, when the little mind of man can abuse this wondrous big world just as it sees fit, it but marvelously shows what an immense abount of liberty God gives to a very little thing. To an uncultured and untrained mind, which I but have, a study of the mind doth truly beget much that is confused in thought. For I fain would study in pleasure's course; not in profoundity's somber way. Aye, 'tis but honest said, that I do, indeed, love welling, sounding metaphor; while it may not be profoundity's own, still it oft a pleasure brings. Thus, when I read that intellect is but a cold, intense force, I but too soon find that another says that "intellect is a living ray of intellectual fire." Thus, 'tis again, "So the mind, so the thought." Anon, here one says, "The mind is the forge from which thought is wrought." Then here 'tis said, "Intellect is the electric force of the brain." Here one in strangeness says that "The mind is like unto our

stomach;" while yet another says that "The mind is like unto an empire." Yea, Joubert says, "The mind is the atmosphere of the soul." Then Schiller chimes, "The mind is the eyesight of the soul." Anon, "Hard intellect is a hammer, that can do nothing but crush;" while another says, "Intellect is stronger than a cannon." Ferdinan Calablero says, "Intelligence is a luxury—sometimes useless, sometimes fatal; it is a torch or firebrand, according to the use one makes of it." Aye, marry! this last is well said by this fair Spanish dame.

Thus, 'tis seen, the mind can have any kind of an opinion of itself, as it but sees fit; for we have surely enough diversity of opinion to suit. But, then, a mind may be anything in flowered speech, and still hold its semblance; for its very breadth begets comparison. 'Tis a plain truth, that simplicity of expression is a mental virtue which most oft flows from a strong, clear mind. All mankind loves truth when 'tis easily understood; as thus it becomes a pleasure, not a labor. But the study of the mind is the study of nature's deepest truths; and its wonders seem not always to be easily perceived. True, with me, in its study I soon become a tangled man, and must needs have help. And thus said I to Theodorus, that "I was ever willing to study, but made poor thrift in this study of intellect."

"Nay," said he, "the world does not show its rarest progress here; for opinion sways, and remains opinion still. The intellect, as I understand, means the mind, or its reasoning powers; hence, it must, of course, be as diverse as men themselves. Thus have I learned that the virtue of a man's mind or intellect depends upon its quality and quantity. A man may have a high quality of intellect in many strains, but its quantity be so little as to make him but an intellectual idiot. Thus, 'tis seen in what science calls 'Idiots Savants'—learned idiots. These persons are mental wonders in certain ways—developed in rare and astonishing aptness for Arithmetic, Music, Special Memory, the imitative faculty, Modeling, Delineation, and Painting. Nay, history shows that these idiots are marvels in certain things, yet idiots in all else.

"Here, forsooth, is one unable to do aught else than roll within his brain solutions of problems teeming with millions of numbers. Thus, have I read of one untutored and uncultured in every way, who was asked, 'How many seconds a man had lived who was seventy years, seventeen days and twelve hours old?' And ere thou couldst count ninety, the answer came: 'Two billions, two hundred and ten millions, five hundred thousands and eight hundred seconds.' This, surely, is but a close connection between us and the great Unknown.

"Here another holds within his mind many thousands of musical themes, which ever recur at his bent or will; and yet it is true that his mind is so enfeebled as ne'er to know how to act or think.

"Nay, here I do read of that wondered child of Lübeck, that 'He died too soon—at the age of four years—for the fact of mental weakness of any kind to be established. His precocity made him the wonder of his time—1721 to 1725. He knew the chief incidents of the Pentateuch, at the age of one year; had mastered all of Sacred History, at two years; and was intimately acquainted with Modern and Profane History and Geography, and spoke French and Latin, besides his native tongue, at the age of three.'"[1]

[1] IDIOTS SAVANTS: By Frederick Peterson, M. D.—*Appleton's Popular Science Monthly*, December, 1896.

Theodorus had scarcely stopped reading this, when Theo. Celsus said: "Gracious heavens! This is prodigious! Aye, man's head is the wonder-box of this world, and is but inexhaustible in its wonder-working products. Still, thou canst not enclose a giant's brain within a babe's skull. Nor canst thou put a Shakespeare's brain into a pea-pod; for Shakespeares are born, not made. Yet, it is truer still, that it takes more than birth to make a Shakespeare. But this wondrous child of Lübeck did but show where the miraculous and the impracticable met; they made an impossibility, and fate had to kill it."

"Aye," said Theodorus, "'tis very true. But, then, it doth seem that gray matter makes mind; hence, unusual quantities of gray matter may make unusual mind. Perchance, gray matter is not matter at all, but mind alone; for semblance is not always verity.

"Anon, these idiots have quality, as far as they go, but not quantity enough to make sane men. A man may have even quantity of intellect, but its quality may be of such a character as to make them but as insane men; hence, both lack of quantity and lack of quality may make men intellectually inefficient. Nay, in both of these conditions, the lack of proper quality and proper quantity may make a degenerate; that is, these persons are worse, both mentally and physically, than the ancestors from whom they descended.

"Degeneracy is a birthright of evil, leading to mental inefficiency, insanity, and crime. Nay, indeed, it is but the vagary of mind, in varied gradation. It may hold within itself, in every thought, in every act, a perverted course. A mind, to have tone, must have both quality and quantity. It is the mind's tone and balance that gives the highest phase of intellect. Thus, balance and tone may be variable; hence, the variableness of its tone and balance makes the variableness of its intellect. Yea, a mind of proper quality and quantity is never useless to any man; but, when it lacks quality, quantity, proper tone, and balance, no one can tell how erratic may be its function. Aye, true, indeed, it is, that intellect may be as varied as its quality and quantity; and quality and quantity may be involved in as many conditions as there are stars in the heavens."

Aye, this much I learned. But, then, these may be simple truths; aye, I e'en will admit, simplicity's own. But, gracious goodness! How mixed do they become in every-day life! Nay, then, I know, perchance, 'tis better to say that I think that we beget from our ancestors many of our faults. 'Tis not through our own doings, but through the fated and willful acts of those from whom we came. But, still, I know, that I, for one, and perchance all men are but the same—that I feel far more comfortable in my life, when I excuse these faults, than when I wildly condemn them. Hence, I know how great and good is charity.

I do, indeed, think that, when you do but slowly study how many inherited conditions man's brain holds, and this brain commits faults, we should at all times, indeed, be charitable towards faults of others; since neither you nor I can tell whence they come. But, true it is, that they are most oft an inheritance, which these persons can neither correct nor control. Yet, forsooth, while I do e'en now preach charity, still in my soul, I find myself losing patience with the very man that I should be patient with.

Nay, 'twas but last week that I did forget myself in sheer and stressed vexation, and came near using physical violence upon a man, who, as it was afterwards found, had, indeed, inherited defects. But, then, still, he had the form of a sane man, and even the irritating force of language; and it was almost next to impossibility for me to but control myself. Yea, I can bear much, and bear it well, if I do but know that it is right for me to bear the same. But if injustice fill the theme, I am apt to give way to foolish anger.

It was towards the close of evening's hour, when I had sat me down in the waiting room, busily writing the events of this day; when suddenly there came a series of pondrous and impatient knocks upon the door.

I quickly answered; and e'en as I opened the door, I was thrust aside by a tall man who had long hair, red, pointed beard, and strangely fashioned clothes. He, with a lordly air, walked into the room, unbidden. Aye, goodness! He was, indeed, a pompous person. He did but glance at me, and then, in grandeur, did survey the room. Seeing none other than myself, he said, in slow and deep voice: "How, now, Sirrah! where is thy master? Answer quick! My visit is of great import. Get thee gone, at once! And tell thy master to appear, at instant call, as I would see him!"

"Sir," said I, "Dr. Theodorus has just departed, and from his direct, will say to thee, that he'll not see either thee or other person until tomorrow's morning hour."

"What! Thou fool! Darest thou speak to me thus? Nay, dost thou not know who I am? Canst thou not see that I am a man of bearing and true import?"

"Nay, by my soul!" said I, "I cannot see aught else than thy towering impudence."

"Hark ye, ye stripling fool!" said he, "the Greek saith that impudence is a god. Dost thou hear? I say, dost thou hear that?"

"Yea," said I, "I do but hear it. Now, I tell thee, if odium made gods, thy Greeks could make many; for Jove was noted more for his virility, than for his god-like and divine character. Nay, I tell thee, thou hectoring boaster! that the Greeks did, indeed, make a glaringly ignoble set of gods—just as full as thou art, of peculiarity and vulgarity."

"What! Sirrah!" said he, "darest thou speak to thy superior in such tirade?"

"Yea," said I, "and more I tell thee, that, unless thou comest to thy purpose, I will, indeed, forcibly make the leave."

"What, ho! Ye gods and saints!" said he; "have I but touched thy rankling venom? Nay, then, keep thy anger down, and I will soon tell thee my business. I am an important attorney-at-law, and have weighty message for thy master, which concerns his weal in vital ways—nay, I may say, in a deeply legal way. If I cannot see him now, he must come to see me. Here is my address. The hours are there. But it must be e'en tomorrow—not later; as I am, indeed, a busy man."

" 'Tis well, Sir," said I, "I shall deliver thy message."

"By my troth!" said he, "I like thee, youngster! Nay, pay me a visit! I may, perhaps, aid thee in thy advance through this world; for it hath been my pleasure to elevate many worthy persons. Nay, doubt it

not, I do, indeed, bide close to power. Forget not this message, as dire trouble will surely follow. I bid thee farewell."

Here he straightened himself up; puffed out his chest; smoothed down his front; and, in majesty, stalked out.

He was, indeed, a peculiar man in his talk, which was full of "humphs," "poohs," and snapping of the fingers, ever and anon, for some purpose comprehensible to none but himself. I am free to confess, that his impudent, self-important, and majestic talk did, for the nonce, produce more or less influence; but the more I thought, the surer it seemed to me that he would eventually prove but one of that hair-brained class of which I had met so many ere this. It was, indeed, more than amusing—nay, laughable, to hear him say, in the very deepest tone of tragedy, "Hark ye! stripling fool! The Greek saith that impudence is a god!" Aye, faith, his voice filled that room with pondrous tone, which rolled from sides to ceiling; from ceiling to floor. His attitude, too, was that of a gladiator delivering his most crushing blow. His very face showed deep purpose. Yea, indeed, he was almost sublime in action.

Anon, impudence is not a weak bantling; but I had ne'er given it divine elements. Yet, now, I do, indeed, know that it is, or can spring from audacity, or from a mind diseased; and in the ordinarily healthy, it surely leads to insolence; that supreme impudence may even give a man reputation; and I doubt not, may make a very fool admired at times. Yea, brainy impudence seems unduly close to success, and accomplishes much. Impudence must make blunders; but withal is one of the best seasonings that chance ever had. True, it is, mankind must ever worship success, no matter whether it comes from impudence or not. Repute may hang a man; but, at times, impudence makes him.

When Theodorus returned, I then did relate my experience with this man, giving as close an account as I could. I learned that this man was unknown to Theodorus. Hence, he placed no confidence or belief in this man's assert.

Theo Celsus, happening to be present, when I did but advise and relate to Theodorus what had occurred, begged the privilege of going to see him, as it would be senseless for Theodorus to do so. So, saying that if anything of import occurred, he would return; when arrangements might be made, in due and proper order.

Not an hour had elapsed since the man's departure ere Theo Celsus was on his way to see him.

Now, then, I placed no credence upon this man's say; and so thought that it was but nonsense to give attention to such a character. But, then, after all, there could no harm come from what had been proposed; and, indeed, some fresh knowledge or benefit might accrue therefrom.

THEO CELSUS.—Worthy Sirs, I cry you mercy, for my delay. But, by my troth, and in sober earnestness—yea! I did but strike a wonder! And as thou didst direct, Theodorus, so, I went; and, after much travel, did in scant quarters find my man. Thus was he fixed: A bare floor; two chairs, which did appear as courting catastrophe and sweetly welcoming wreck; a squatty bed, unkempt, and begrimed with dirt, time and inattention; a small table; a bowl and basin; was this rare room's full paraphernalia. Its walls reeked with royalty; for kings and queens were only

manifest—queens of hearts, queens of diamonds, spades and clubs were pasted alongside of their worthy kings. And, indeed, they were legion; for if, there, space had dared but show itself, it was truly fated to be garnished o'er with royalty. If a pack of playing cards is but the devil's prayer book, he, my man, forsooth, was indeed devoted to prayer, but only in a royal way; for kings and queens of the red, kings and queens of the black, shone resplendent, from every side, from every nook and cranny, and did but suggest a fancied freak of oddity and persistency.

Thus far, 'tis well. But, in all wonder, what a marvel was the man! Forsooth, he was tall and slender; with a comely shaped head; with long, black hair, hanging down in wavy mass o'er his shoulders. His hair was parted, with rectitude, in the very middle. His beard was red, cropped at the sides, and terminated in a sharp, twisted point. His eyes were dark and deeply sunken; and, ever and anon, blinked and roamed in fitful speculation. A straight nose, somewhat balled at the end, continually marred the harmony of the right side of his face. His eyebrows were shaggy and mixed in color. By my oath! 'tis strange, yet true, that his clothes did but court query as much as his face did: of a red foxy color was his coat; of courtly cut and pattern; rich in brass buttons, on either side of its straight breast. A vest, once white in color, fitted closely to his chin, was buttoned by lustrous metal; while his trousers were of a faded, heavenly blue.

Aye, 'tis true, his clothes fitted him well; yet, in honest and sober truth, I do but aver, he did look to me but e'en as a time-worn barber's pole. Now, perchance, there is cause for comment—what more of the man. Odzooks! He did but complete the freakish wonder. He had quick utterance; a voice that played with his feelings, in tragedy, drama, comedy, or in songful opera, as he willed. This, with his quaint motions, mirthful explosions, and repeated proverbs, courted laughter more than tickle in a child. He was like past ages; for he flowed with proverbs. Aye, true, he e'en was as ridicule; for he lived only to test the truth; yet, like courage, he did mount with occasion. And, anon, still more, did he resemble ambition; for he "vaulted with ease's wings" to the wondrous and fabulous. Aye, he bides not alone on this earth, but mounts to the heaven in liefly freedom. Ever and anon, while talking, would he make a triple, distinct, loud, yet modulated "Humph!" "humph!" "humph!" to be at once followed by an explosive "Pooh!" This, followed, in sequence, by a raking, snapping of the finger-ends on the thumb of his right hand.

It were folly to tell verbatim our parleyed converse, but I will quickly detail his story. "Most gracious Sir," said he, "at a very early period of life, I was noted for good judgment, where others erred; yet, was I ever right; for, as the Turk said, 'to him of good judgment, the sound of a gnat sufficeth; to him who lacks it, the noise of an orchestra availeth not.'"

Here followed the three "humphs!" the "poohs!" and the click of the fingers.

"I learned with ease, and learning came fast; for, by my faith, I know that learning makes a man fit companion for himself. I will not tire you by tedious detail of unimportant event, but let it suffice that I studied law

and when twenty-two years old became a lawyer—that much-abused man, of whom Fletcher, in irony, said:

'A lawyer, that entangles all men's honesties,
And lives like a spider in a cobweb lurking;
And catching at all flies that pass his pitfall.' "

Here again, the "humphs!" "poohs!" and clicks.

"I ever tried, and ever achieved. I pored over court records, and was open-eyed and alert, watching with the intensity of fate, to beget good accomplishment. Thus, was I by industry borne for rare circumstance, and to custom the law must yield."

Here again, the repeated "humphs!" and so on.

"It was strange, yet, withal, natural. I was consulted in the case of a merchant who had died intestate. He left behind a fortune of seventy-five thousand pounds. Now, the query was, to more than one scheming legal mind, as to who and where was the heir. After much keen and shrewd work, I did but find this was a child, twelve years old, at boarding school,—an only child of a widowed mother. Yea, here was opportunity; for, by the gods! I do but know that opportunity is fortune's giant, a conquering warrior of dire adversity; and thus I did, with surety, take warning of the Dutch, which says:

'The first occasion offered, quickly take,
Lest thou repine at what thou didst forsake.'

"I soon did make my plan. I would woo the maid at twelve. For it was easier than wooing the widow; as, it is said,

'He that woo's a maid, must seldom come to sight;
But he that woo's a widow, must woo her day and night.' "

Here again, the repeated "humphs!" "poohs!" and so on.

"'Twas easy to find the school where she did bide; and upon my first visit met the maid. With talk, and candy, and sweetmeats, I start her regard; and, ere I had seen this child the fourth time, we had but plighted our troth, and determined to marry. As Jeremy Taylor says: 'Marriage is the mother of the world, and preserves kingdoms, and fills cities, churches, and heaven itself.' "

Again, the "humphs!" "poohs!" and clicks.

"But, such was not to be, for the mother appealed to court for protection of her ward; and, when I tried to take my affianced hence, I was arrested. Yea, not once, but at four separate times, did I pine in prison cell. But, by my own learning and knowledge of law, did each time remove my trouble. Still, with all the shrewdness I evinced, was I but thwarted; until effective plot brought accomplishment. I was watched, night and day. So was my love; until, by direction, a few friends did take her to a town upon the coast. I, in cunning and triumph, then got into a hogshead, labeled 'pickled pork,' and was shipped on board a vessel to where my love did bide. 'Aye, love accomplishes all things; fears no danger; though blind, it yet sees afar.' "

Again, the "humphs!" and so on.

"At this place we lived, for seven years; and, in good judgment, refrained from marriage, as I did but see the danger of assuming new names; and we, of course, dared not be married in our own, as discovery might follow. Finally, kind fortune enabled me to prove the claim, and additionally did favor me, in the death of my mother-in-law. 'Death, that grand leveler,' made her the equal of men; for, 'tis said, 'six feet of earth makes all men equal.' Thus it was, that my wife came into possession of her property; when we were publicly married at once. For some years we did in contentment bide; for contentment gives a crown where fortune has denied it."

Again, the "humphs!" and so on.

"Now, Sir! time doth bring sad changes; for 'people often change, and seldom do better.' For those who court change, are apt to court suffering; and thus it was with my wife; for, 'when the wife rules the house, the devil is man-servant.' She tried to rule, and failed. Then did bitterness arise, and estrangement follow. Thus, did it continue, until an officer of the army appeared upon the scene. Gods! 'Tis true, 'A soldier, fire, and water, soon make room for themselves;' and, I warrant you, he did it. And it is additionally true, that 'ignorance, poverty, and vanity make many soldiers.'"

Again, the "humphs!" and so on.

"Now, Sir! this bitterness grew apace, until I did but foresee that dire trouble would follow. For, when I did hear their mad proposals to each other, I brought suit for separation; and through the courts obtained my divorce. It was agreed between us, that out of her means should come to me a specified annuity; and thus did we part. This annuity was paid for a year and a half, until they did take up their abode upon the Continent. I entered upon wild speculation. I was a good gamester, as long as I had my wife's purse; but I, only too soon, proved that 'rich gamblers and old trumpeters are rare.' Yea, 'rare commodities are worth more than good;' and certain it is, that I was rarity's own. Still, the Turk doth but chime truth when he says, 'The worth of good is not known, but by experience.' Yea, I sadly trow, that I know the good."

Again, the "humphs!" and so on.

"Look you, Sir! Look you, Sir! around this room! What adorns the walls, I have, only too oft, fingered in play; and they do but tell, in royal figures, a part of a tale of loss and woe. Aye, what nonsense, what utter foolishness, in Syrus' saying, 'The loss that is known, is not loss!' Nay, I could tell my loss only in the absence of means. Bah! Away with it! Hang it! Gambling is but a soul's leech, a heart's thwarter, a mind's folly, which, infectious, holds its sway o'er every speculating fool in creation."

Here there were three enormous "humphs!" and so on.

"Thus, have I been the caprice and whippet of fortune. Yea, I do but resemble 'a flake of eiderdown, that to the air is given,' which doth as easily light upon base, doubtful soil, as upon beauty's bosom. By the gods! I do but swear, that if I were but a seedful rose, in fulsome earth for purpose put, it were pounds to pennies that I would blossom into an onion, and, in pungent odor, belabor a genial air."

Here, more "humphs!" and so on.

And, now, a strange thing did occur. E'en as he spoke loud knocks came, apace, upon the door; when a voice, in force, did rend the air with, "Jem! Thou villain, Jem! What told I thee? Yea, to work; or by my soul, I will rack thy frame in more than pain!" And, in a thrice, I did bide but with the emptiness of that room; and Jem had fled; and that for which I came, was unsolutioned.

Now, then, skeptic marvel came; and I was but determined to learn more of my litigious, lieful friend. So, to a dramshop near by, I hied me; and in soothing, liquid measures learned that the exalted Jem was but a lawyer's scribe; that his flowered tale was but a fulsome lie that welled in fancy's train upon a liar's brain; that he was harmless; that he lied as he did but eat,—for with both did relish come; that it was doubtful whether he had ever possessed a full pound of money at one time; but that he rolled in lieful grandeur; that he was considered, by all around, a rare swayer of language; that industry rarely claimed him—for, while he would purl in rasphody and excellency, at one time, it was only soon to be followed by naught. For, he ever chose a mixed course, which did bring him but trial and protest. By all he was called "Echo Jem;" for, he had so often said, that "proverbs were the echo of time," that "echo" did but stick to him as a nickname. Yea, by my troth, he bubbled in foolish vanity, and, like fulsome pleasure, courted pain. Yet, was he still more like the stage: he was a refuse for stale and ancient jokes, and antiquated themes.

Such, then, was but the story of Echo Jem; and the Cohort, without further wait, did take the theme of an eccentric degenerate. Yea, it was apparent that interest had come with this report of Theo Celsus; and here what follows doth strive to show the views of this Cohort upon this theme.

[TO BE CONTINUED.]

HISTORICAL SKETCH.

THE IATRO-MECHANICAL SCHOOL.

By JAMES MOORES BALL, M. D., of St. Louis.

SIMULTANEOUSLY with the rise of the systems of Van Helmont and Sylvius, there appeared another system, to which the names Iatro-Mechanical, Iatro-Mathematical, Iatro-Physical, and Physiatric School have been given. Sanctorius was its precursor and Borelli its founder. Bellini and Pitcairne, Keil and Barry, Baglivi and Boerhaave, were its greatest advocates.

The rise of the Iatro-Mechanical school of medicine can be traced to several causes. In the first place, progress in chemistry had given rise to the idea that the functions of organized beings are controlled by laws which regulate the combinations of inorganic bodies. The advances which resulted from the application of mathematics to astronomy, physics and

mechanics caused physicians to expect much from the application of mathematical calculations to the phenomena of the living body. The elucidation of the circulation of the blood by Harvey gave a powerful impetus to the idea that the human body is a machine and physiology a department of physics.

Imbued with the thought that they could determine with mathematical precision the vicissitudes of health, the physicians of the Iatro-Mechanical school devoted their time to patient and ingenious observations. They concerned themselves chiefly with the solid parts, whose form and function they attempted to elucidate by exact methods, such as weighing, measuring, the use of the thermometer and of various kinds of physical apparatus.

To them digestion was mechanical trituration; absorption of chyle took place in obedience to the pressure of the intestine upon comminuted food; respiration was credited to the mechanics of the motions of the thorax; warmth depends upon the friction of blood corpuscles; sensation is the result of vibration in nerve tissue; the heart is a pump, and circulation depends on the laws of motion in tubes; and health depends on the proper performance of the physical and mechanical processes in the body. Similar ideas were applied to pathology. The ingesta and excreta were compared to determine the existence of disease; explanations of morbid conditions were sought in angular crystals, and to the possibility or impossibility of these passing through pores; stagnation was a cause of disease, and dynamic and chemical explanations, while not entirely banished, were considered of little importance.

Charmed by the advances made in other sciences by Galileo, Torricelli, Newton, and others, and swayed by the philosophy of René Descartes, physicians conformed to the spirit of the age and founded the Iatro-Mechanical school. This school attacked, defeated and succeeded the Iatro-Chemists. In France and Holland the progress of the Iatro-Mathematical school was slow, but in Italy and England it became supreme.

SANCTORIUS, 1561-1635.

The first representative of the tendency toward mathematical medicine was Santorio Santoro, an Italian who obtained a great reputation because of his patient investigations to determine the relation between the ingesta and the excreta of his body. For thirty years Sanctorius weighed his food and excreta daily; he then compared the results with his body weight, and found that a portion of the nourishment leaves the body in invisible form (*perspiratio insensibilis*). His best known book, *Statica Medicina*, appeared in 1619, and has been translated into Italian, French, German and English. It was in this book that the author formulated the laws of natural insensible perspiration. In this work Sanctorius pays his respects to the followers of Van Helmont in the following language:

"It has something in it that would move one's Laughter as well as Amazement, to reflect upon the Extravagancies of some subtle, crafty Heads, who, to account for the Operations of a human Body, have abstracted and spiritualized upon it (if it may be so termed), so far as to assign every particular Part some sort of Intelligence or Soul, which rules and manages it in the Performance of its Offices. This wonderful Contrivance, indeed, not only shews abundance of Penetration in the Authors of it, but also saves a great deal of Trouble in

the Manner of its Attainment; for by this we come at once to know that the *Stomach* digests, that the *Liver* sanguifies, and that the *Brain* makes Spirits, because these Parts have such Faculties presiding over them, which, as long as they are pleased, make one digest, another sanguify, and so on, as the Occasion of the Constitution require. And upon

Chair-like Weighing Machine of Sanctorius.

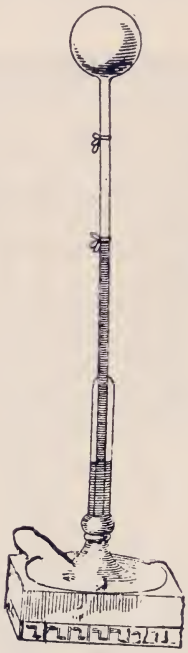
this Means, likewise, there is laid open a direct and pleasant Road to the Art of Healing, when any one Part happens to be distemper'd. For to this there is no more required than to apply such Remedies as the indisposed Faculty delights in and will be comforted and strengthened by. And of this kind we never fail of being plentifully stored by

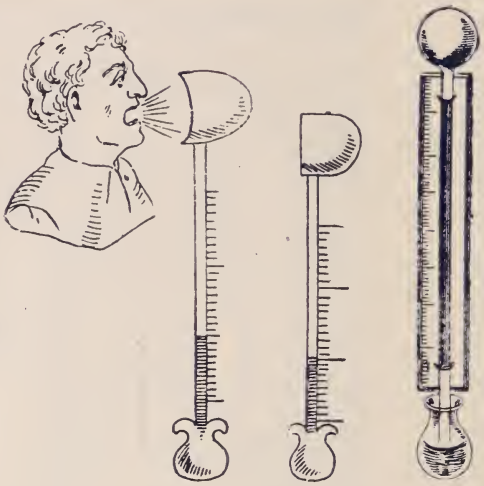
the indefatigable Searches and Discoveries of such as have been conversant with the Planets and are versed in the occult Sciences. So that every medicine given to rectify the Disorders of any particular Part, seems only to be a kind of Sacrifice to the presiding Deity of that Part.

"And this is very like to be the Reason how Persons of warm Imaginations, and great Devotion, so very easily come to be Physicians, because the merit of the Sacrifice is so much enhanced by the Qualifications of the Persons who offer it.

"But that extraordinary Chymist, *Van Helmont*, has carried this Way of Reasoning still much farther; and to make the Work short, has set but one general Deity over the whole, which he calls the *Archæus;* and by this he has not only shewed a commendable Zeal against Pollytheism, and thrown out of the human Body all those *Pagan* Deities, which had their Rise only from the Invention of a Corrupted Generation, but had also laid open a still much nearer Way to the Art of Healing, if any one could be so happy to find out that particular Oblation which his *Archæus* would vouchsafe to accept of; but this is what I think yet remains undiscovered, or at least is reserv'd as a religious Secret amongst the Adepts of this Philosophy. But upon this View, *viz.*, to find out something for this great Purpose, it is that the *Dispen-*

Galileo's Thermometer, 1597.



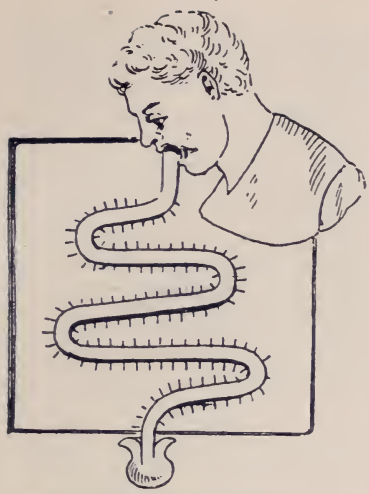


Thermometers used by Sanctorius, 1625.

satories are stuffed with Pollychreston's, Panpharmacon's and Panacæa's, and I know not how many universal Medicines: For let the Distemper be what it will, or seated in whatsoever Part; yet as it has its Rise from some Disturbance given to the *Archæus*, so, whatsoever can be found to quiet and appease this presiding Power, will also bring about a Cure by restoring it to good Temper, and bringing it thereby to govern and carry on all the several Functions as before." [1]

Sanctorius was deeply interested in the body temperature. As early as 1597 Galileo had constructed an open thermometer or thermoscope. It was a glass tube, open below and ending in a bulb above. The bulb having been warmed, the open end was placed in water, so that on the bulb cooling the water would rise. Needless to say, it was not an accurate instrument. A few years later, Sagredo, a Venetian noble, hermetically sealed the tube, divided the scale into one hundred divisions, and thus

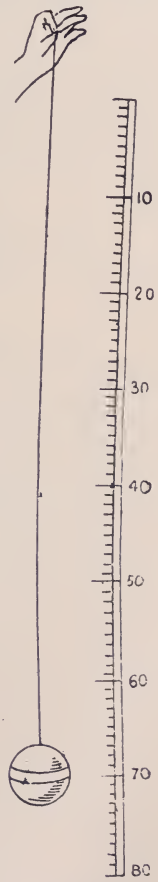
[1] MEDICINA STATICA: Being the Aphorisms of Sanctorius. By John Quincy, M. D., London, 1728.



Mouth Thermometer of Sanctorius.

gave us the modern instrument. In 1625 Sanctorius issued another book: *Commentaria in Prinam Fen primi libri Canonis Avicennæ*, in which are described the pulsilogia, thermometers and hygrometers with which he experimented. That he appreciated the value of instruments of precision is evident from his writings. Speaking of the thermometer, he said: "We have here an instrument with which we may closely measure the degree of the recession of the heat of the external parts, and with which we may daily learn, with accuracy, how much we vary from the normal; also, the degree of heat of your patients." The patient is to grasp the bulb, or breathe upon it into a hood, or take the bulb into the mouth. Although he left no records, and his suggestions were soon forgotton, yet it must be conceded that Sanctorius saw of what value the thermometer might become in medicine.

Herman Kepler, the astronomer, seems to have been the first who counted the pulse. The publications in which he mentions the pulse date from 1604 to 1618. Galileo invented the pulsiligon, which was attributed to Paoli Sarpi, and at a later date was appropriated by Sanctorius. Of it he said: "I can measure the utmost degrees of variation of the pulse, both as to frequency and as to slowness." The instrument "is composed of a little cord made of linen or silk, to which, as may be seen, is fastened a leaden bullet, which, being struck, if the cord be long, the motion of the bullet will be slower and less frequent, if the cord be short, its motion will be quicker and more frequent. When, therefore, we wish to measure the frequency or slowness of the pulse, we drive the bullet with the fingers, lengthening or shortening the cord until that point be reached where the motion of the bullet exactly coincides with the pulse-beat of the artery; which being found in a certain region to be 70 in degree, shown by a white line on the bullet itself at the point C. The degree being kept in mind, again on the same or on the following day we can make trial with the same instrument whether the pulsation of the same artery be a very little quicker or slower; we say 'a very little,' because in the use of the instrument we do not seek those marked differences of rapidity or slowness of pulsation which can be carried in the memory of the physician, but rather those very slight ones of which the differences between one day and another are barely noticeable." [2]



The Pulsilogium of Sanctorius, 1625.

There is no doubt that Sanctorius was the first to apply the principles represented by the thermometer and the pulsilogium to medical diagnosis. He invented a hygroscope and

[2] Translated by S. Weir Mitchell, M. D., LL. D., Harvard, in "The Early History of Instrumental Precision in Medicine," New Haven, 1892.

attempted to measure the amount of aqueous vapor in the atmosphere, and by its use he attempted to estimate the amount of sweat excreted in a given period. Sanctorius passed much of his life in a chair-like weighing machine of his own invention, by means of which he discovered the insensible perspiration. He expressed the wish that every physician might have a similar machine, since changes in weight are among the earliest signs of disease, and furthermore, by taking his meals in such a contrivance excesses in eating would be avoided. He invented a trocar and canula, "by which an opening may be made rapidly in the wind pipe when suffocation is imminent, especially in infants." The same instruments may be used in tapping the abdomen in dropsy. A kind of kettle for distributing vapors in the sick room, and cupping glasses fitted with exhausting syringes, are figured by Sanctorius. These syringes were used by him twenty years before Guericke is supposed to have invented the air pump.

Sanctorius deserves credit for his opposition to astrology. He belonged to the pre-Harveyan age and, unfortunately, concealed many of his innovations where the reader would not expect to find them, in his commentary on the *Canon of Avicenna*. Although many of his inventions were forgotten, or fell into disuse, the influence of his *Medicina Statica* was so great that it may be said, with justice, a new epoch in medicine began with its publication. Sanctorius, however, did not attempt to found a new system, but rather endeavored to give greater accuracy to the old Galenic doctrines.

[TO BE CONTINUED.]

Influence of the X-Rays on Experimental Tuberculosis. — Rodet and Bertin-Sans reported that they had subjected guinea-pigs which had been inoculated in the thigh with tuberculosis to the action of the X-Rays. They varied the conditions as regards intensity, duration, and frequency of sittings and arrangement of the tubes. In some cases the treatment was begun a certain time after the inoculation (curative treatment), in some almost immediately (preventive treatment). The rays caused local trophic disturbances often of a serious character, in the form of extensive ulcerations in the regions directly exposed to the rays; the ulcerative process was favored by pre-existing local tuberculous lesions. The rays had a bad effect on general nutrition, the animals treated showing less growth or greater loss of weight than the "controls." Death was generally hastened by the treatment. This was more particularly the case in the animals in which the rays produced caustic effects, bnt it occurred independently of this. The treatment had a manifest influence on the infection of the lymphatic system, determining a regressive action in glands already involved, and restraining general infection of the system. On the other hand, so far from restraining the invasion of viscera the treatment to some extent favored it. The spleen, the liver, the lungs were found on the whole more tuberculous in the animals treated than in the "controls." In no case did the rays have any beneficial result.—*British Medical Journal.*

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MOSQUITOES AND MALARIA.

It would appear that Surgeon-Major Ross has demonstrated that the "proboscides of the culicidæ" are the pathogenic conveyors of malaria. The *New York Medical Journal* says: "Dr. Ross did not content himself with the observation that there is no malaria in certain districts where mosquitoes do not bite—shrewd guesses based upon such coincidences had been made by Marchiafava and Manson years before Koch gravely announced the theory his own—but he followed the plasmodium in all its evolutions and its travels through the body of the mosquito." From this it would seem that the mosquito is a traveling-winged musical vehicle floating in æthereal space, with an ever-ready proboscide distributing the plasmodium *secundem artem* and free of cost. Age upon age has indicated the manifest influence of the plasmodium malaria upon a two hundred pound individual; hence, we are compelled to acknowledge that upon the basis above cited that the mosquito is the most athletic and most resistant thing on earth. Thus, in illustration, the mosquito introduces underneath the skin of this two hundred pound individual the plasmodium which absolutely makes this two hundred pound mass quiver and shake, burn and melt, whilst this seemingly copper-lined tiny thing—the mosquito—ecstatically and musically floats in the ambient air loaded to the chin with enough

plasmodii to stun an elephant. The mosquito can carry more misery to the thousandth of a grain than anything living; it is the chilliest thing on earth. The mosquito is little; but when he sings your ears are full of him; you need never doubt, he knows whom to attack;for, between an alligator and a man, he will take man every time, as the mosquito has long since learned that he wastes his time when he tries to sting an alligator. Truly, the mosquito is musically cheerful—he always sings when he works; he will play a lullaby in your ears whilst he hypodermically insinuates his "proboscide" well loaded with plasmodium. The mosquitoes, we are glad to learn, are respectable according to locality; for it is said that Alaska is their paradise, that they live in greater numbers and in more robust vigor than they do in some southern climes. We are told that in the Klondike region they are too busy in sucking suckers to now turn to conveying the plasmodium. Perhaps it would, indeed, well pay some deeply ardent and truly zealous investigator who revels in the cold, bleak, chill side of nature to discover what the Alaskan mosquito conveys in its hypodermic proboscide. However, it may be that an Alaskan climate is of such chilly nature as to have shaken all of the "shakes" out of man; thus failing to give the plasmodium a chance. O.

DISEASES OF THE PHILIPPINE ISLANDS.

At this particular juncture our readers doubtless will not be adverse to hear concerning the character of diseases rife in the Philippine Islands. From all that can be learned it is not a very salubrious climate, nor one where the comforts of modern life can be obtained *ad libitum*. It is stated that Manila has no elements of a sanitary character, and that it is characteristically filthy. This, along with a trying climate, certainly does not tend to make it a pleasant abode. From the *British Medical Journal* we learn that the population is about 250,000; consisting of sixty-seven per cent. pure native, thirty per cent. Chinese and Chinese half-breeds, and three per cent. Spanish, with a few other Europeans.

The diseases most common in the Philippine Islands are dysentery, malaria, tuberculosis, and syphilis. Dysentery is, however, less frequent and less virulent in Manila and other parts of the Island of Luzon than in some of the islands of the group. Malarial and other fevers are prevalent during the rainy season, which begins about July 1st and lasts until the end of October. Epidemics of small-pox and measles are of almost yearly occurrence. Amony the native and Spanish troops syphilis is shockingly prevalent; in the military hospitals about twenty per cent. of the inmates are generally found to be suffering from that disease. Tuberculosis and bronchitis are very common among the natives, and many such cases are always to be found in the military hospital of Manila. It has been estimated that seventy-five per cent. of the native troops in the hospital have one or other of these diseases. Beri-beri also claims many victims. The European residents complain of a tendency to "scruff" which develops after a short stay in the climate. The natives believe that the eating of the flesh of monkeys is a preventive. In the forests of Luzon there are a great many monkeys, and the native believes that stewed monkey is an infallible cure for skin diseases of all kinds. The writer says there are

few dishes more delicate than young monkey stuffed and baked, though it looks very much like a small brown baby. The cities as well as the jungles swarm with snakes, frogs, lizards, landcrabs, centipedes, tarantulas, large poisonous spiders, locusts, beetles, and ants. The most dreaded of the snakes are those called by the natives *alupong* and *daghong-paly;* the bite of either of these reptiles is said to be fatal if not immediately cauterized. Every pool of stagnant water is alive with leeches, and in the forests there is a tiny leech which has a disagreeable way of unexpectedly jumping into one's eyes. Mosquitoes are very troublesome, but there are few crawling insects about because they are destroyed by the newt and by a species of lizard called *chacon.* O.

ECMUESIA.

The field for the practical application of hypnotism seems almost endless, and the results of its application are seemingly at times impossible to interpret aright. Certain it is that at times it is an agent possessing so many elements of confusion and uncertainty, even in the hands of the most experienced and skillful, as to make it always a means of cure extremely uncertain. In its present state, owing to the fact that so much confusion and uncertainty surrounds it as a means of cure, it must be used with more or less apprehension as regards ulterior results. It would seem that its application is constantly fraught with unknown and at times serious consequences. Krafft-von-Ebing, at the Neurological Society of Vienna, July, 1898, mentions a curious mental condition following its application which he records under the name of ecmuesia.

A servant girl aged twenty-one years, after severe excitement suffered from attacks of lethargy followed by delirium. She was treated by hypnotism, and after being so treated once passed into a mental state in which she seemed to go back to a period ten years earlier. Everything that had occurred during the last ten years was completely forgotten, but for all that had occurred previous to that time her memory was perfect. She had several of these attacks, and they were stopped by further hypnotic treatment. According to the author, similar mental conditions have been produced by hypnotic suggestion in other cases, but the present case is peculiar in its spontaneous origin. O.

THE PREDISPOSITION OF HERNIA.

As a medico-legal proposition, the predisposition of hernia is one of more than ordinary importance. It is a fact which can be demonstrated that corporations and others are frequently the victims of this form of malingering. It is assumed by the laity, and not infrequently aided by the profession, that accident is a frequent cause of hernia. We doubt the possibility of any authority proving that hernia is even a remote factor in the surgery of accident. We believe that over 95 per cent. of all cases of hernia are the consequence of a hereditary predisposition, and that accident is rarely if ever the cause, unless it be in the form of a rupture of the continuity of the abdomen. This may be a seemingly broad assertion; but to any surgeon of large experience, particularly in traumatic surgery, it has been a constant remark how infrequent such cases are. That hereditary predisposition is

by far the largest factor there can be no doubt; and that accident is one of the smallest is as equally true. It is to be regretted that more systematic work has not been done towards demonstrating the relative preponderance of cause in the production of hernia. Kocher, of Berne (correspond. B. P. F. Schweiz. Aerzte, June 15th, 1898) says that in practically all cases of the sudden appearance of a hernia, one of the following anatomical predisposing causes is present: (1) A congenital hernia sac formed from imperfect closing of the processus vaginalis, which accounts for a third of all cases, according to Wood. (2) An adipocele arising from the subserous fatty tissue may stretch the rings and prepare the way for a peritoneal pouch. (3) A conical sac of peritoneum formed in the way described below, and which is of congenital origin only in so far as it may depend on a congenital weakness of the abdominal walls. The intestine at the moment of rupture, therefore, enters an already formed sac, in any case. Nevertheless, the existence of any of these predisposing causes does not necessarily produce a hernia proper, when performing a radical cure for a hernia on one side, if there has been any clinical evidence of a predisposition on the other. Kocher has often taken advantage of the narcosis to operate on it also as a prophylactic measure. He has thus had frequent opportunities of studying prehernial conditions. The conical sac of peritoneum mentioned above is formed by repeated pressure of the intestines, by which the parietal peritoneum is driven forwards over Poupart's ligament as a cone with its base posteriorly. In this process the fascia transversalis yields first, then the internal ring is enlarged, and the ascending fibers of the transversalis fascia (Henle's ligamentum inguinale internum mediale) are stretched and pushed towards the middle line together with the epigastric vessels (in indirect hernia). Further, the anterior wall of the inguinal canal must be relaxed also; and even at this early stage the pillars of this external ring are abnormally separated, whereby the intercolumnar fibers are stretched and lose their power of resistance. Kocher states that almost all direct inguinal herniæ are produced by a similar mechanism, while as regards indirect herniæ he believes more arise in this way than through the presence of a patent processus vaginalis. This experience and demonstration of Kocher, viewed in a medico-legal light, is of value. Hence, the deeper the subject is investigated the less will be seen of other causes than those of previous predisposition. If accident were a frequent cause of hernia, it would never have needed any great length of time to demonstrate, nor would it be necessary to study hidden predisposing causes. O.

THAT MUCH-TALKED SUBJECT, WHO IS TO BLAME FOR THE NEGLECT OF THE SICK AND WOUNDED IN OUR RECENT WAR WITH SPAIN?

Between intemperate, sensational utterances and political intriguing, this subject has received sufficient consideration to cause the formation of an especial board of inquiry by the authorities at Washington. It is a heaven-born dispensation that both discussion and argument possess no elements of power against fact and truth. Still, we are sorry to say that there are too many men in this world, and particularly in the medical profession, who are well pictured by Emerson when he says: "Some men

at the approach of a dispute neigh like horses. Unless there be an argument going on they think nothing is doing." Again, fault-finders are not limited to any particular walk of life, nor does it seem that education lessens their number; for, not infrequently, vanity—yes, excessive vanity—is the basis of their fault-finding. For months past persistent and disgusting tales of official neglect and hospital mismanagement have been circulated. Strained language, horror-tinted and in seeming frenzy, has depicted the varied instances of neglect and the hideous phases of extreme suffering which the soldiers of the United States army have undergone. Illustrated journals show in well-executed prints scenes calculated to arouse pity and foment combat. Then, not the least, surgeons whom we had been led to believe were competent and sensible, indulged in intemperate and useless talk. We read terrible tales regarding the neglect of soldiers before Santiago. Then that Camp Thomas was a veritable cess-pool of filth and pest-hole of disease and death. That Camp Wikoff was a miserable selection for a camp; that in a few weeks sinks and cess-pools of the camp will permeate the earth and contaminate water supply, and, instead of being a recuperative camp, it will become a horror camp. Lieful stories by individual soldiers or inflated and misconstrued tales adapted to the purposes of the reporter; in fact, the whole sad story has been twisted into a maze of intemperate, distorted assertion. Who is to blame? is a question of much moment. When the war first commenced every element at command was in a state of absolute "unpreparedness"—haste, intense haste, marked every step in organization. Havocked hurry became manifest as preparations progressed; an army was organized and put in training camps, unequipped; locality selected with a view to ease of transportation. An army was transported to Cuba and without delay hurried in conflict. Unforeseen difficulties became immediately ponderous; battle, climatic and neurotic surroundings inevitably developed a surplus of patients; inadequate supplies, then complaints, then intemperate utterances upon the part of medical officers, aroused an only too willing and captious press. The country was not only surprised, but dumbfounded and aroused to enthusiasm by the wonderful accomplishment of sailors and soldiers. At this juncture politics entered and used its vilest means to offset a growing enthusiasm; falsehood and exaggeration glowed in every line of the theme. We feel like exclaiming, with Goethe, "I hate bungling as I do sin, particularly bungling in politics, which leads to the misery and ruin of many thousands and millions of people." We cannot help but believe that the entire trouble does not come through the incapacity or willfulness of any single individual or set of individuals, but is the fault of organization. When the surgeon-general of our army can be balked by a second lieutenant just out of West Point, there certainly is some defect in the organization of the medical department of the United States army. It is an old, old tale that the surgical and medical service of both army and navy have never been accorded the position their importance demands. It has always been hampered in organization and subservient to the merest command of men who are in no way educated up to the actual and real wants of this branch of the service. Executive talent has never been cultivated nor encouraged in our army service. It is but a just proposition that the medical department should be a distinct and separate branch of the army, ruled

and regulated by its own laws, governed by its separate head, and supplied in such a manner as to be able to command its subsistence, medical and transportation elements. If England has seen fit and necessary to change her army medical department, it certainly would seem that after what has happened it is imperative that this country should do the same. O.

AN ATTEMPTED UNJUST MONOPOLY.

Josh Billings said, "Take the selfishness out of this world and there would be more happiness than we should know what to do with." Monopoly is the arrogant brat of selfishness, sired by inordinate vanity and devoid of every element of charity or humanity. Take the monopolies out of this world and there would be wondrous development of individual character, enormous increase in intelligence, a strengthening of patriotism, a bettering of nationality, along with a decrease of nihilism and anarchism. All common-sense men detest rant and demagogism, yet at the same time they are ever eager to pronounce against monopolies a modern withering curse of national progression. We conceive that it is the honest, bounden and truly patriotic duty of each and every citizen, not only to protest, but aid in the formation and maintenance of just and equable laws to prevent abnormal possession and distribution, and additionally strive to resist in the most effectual manner any attempt to nullify honorable, efficient and healthy competition. We maintain that it is not only the inalienable right, but the absolute duty, of every citizen of this country to foster, protect and encourage home production.

These remarks were naturally suggested from recently reading an editorial in the *Medical Age* regarding the patenting of Behring's antitoxin serum in this country and the consequent endeavor upon the part of the Hoechst Farbwerke, manufacturers of the Behring antitoxin. From this it appears that this firm of German manufacturers is striving to obtain a complete and unjust monopoly in this country.

We have learned that in the application for this patent that there were five distinct applications and five distinct rejections of Professor Behring's claim for patent. But it appeared that at the sixth trial the Board of Appeals in Washington finally granted the patent. We admire the persistency of the Hoechst Farbwerke; but there is a passing thought that we have heard of corruption even in Washington. If patent laws are such intricate processes as to require six different applications, five rejections, we are free to confess that we doubt its complete justice, even now, and suggest that outside legal ability might aid the Patent Department in this problem in determining the full force and effect of creating a foreign monopoly in this country.

This is, indeed, a serious matter for the United States Patent Office to handle—the fastening upon 70,000,000 people a monopoly which seeks control of a curative agent of such vast importance. The mere fact of placing it upon a plane of a pure commercial commodity, where all competition is throttled, will inevitably lead to the arrogance, carelessness and disregard of a monopoly void of hindering healthy competition. This condition courts and will lead to the manufacture and sale of an agent potent in danger and of death-dealing effect, if ill prepared.

COMPARISON OF ENGLISH AND AMERICAN METHODS AS REGARDS ARMY MEDICAL ORGANIZATION.

Following we print extracts from the editorial pages of two English and one American medical journal to show the difference in the army medical organization of the two great Anglo-Saxon countries:

THE ARMY MEDICAL SERVICE.

We have before intimated that it was largely themselves that the people had to blame for whatever shortcomings might turn out to have been shown in the care of the health of our soldiers. It will be remembered that at about the time of the breaking out of the war with Spain Congress provided for an extensive immediate increase of the regular army. It failed, however, to make provision for a commensurate augmentation of the medical corps, although earnestly besought by the surgeon-general to do so. Then came the call for volunteers, and we soon had in various camps a force of nearly three hundred thousand men. Even then the regular medical corps was not expanded; medical officers barely sufficient in number to serve our little army of about twenty-five thousand men were all we had to depend upon for attending to a force nearly twelve times as large, save for the volunteer medical officers. Now, a volunteer medical officer may be never so learned and accomplished in all that goes to make an efficient practitioner in civil life, but he is almost sure to lack military training, and that is equivalent to saying that at some point or another he will be found weak in actual service, no matter how good his intentions may be. We recognize that there are exceptional men who, coming from civil life, grasp military ideas promptly, and we do not doubt that a number of such men have entered our army since the outbreak of the

THE WAR OFFICE AND THE ARMY MEDICAL STAFF.

It was a happy thought of the Marquis of Lansdowne to select the unique occasion of a dinner at the Mansion House in honor of the medical profession to narrate the plans of the war office for redressing the present grievances of the army medical officers. In no way could the Secretary of State for War have more entirely coöperated with the Lord Mayor in giving a public voice to the high estimate in which members of our profession are held by their fellow-citizens than by choosing his seat at the Lord Mayor's table from which to deliver his ringing words in approbation of the services rendered by the army medical staff and the desire of his department to remove all causes of disagreement between the army and the medical officers of the army. "The army is proud," said Lord Lansdowne, "that it contains a number of officers who belong to the medical profession, but who are none the less soldiers in the fullest sense of the word, wearing the Queen's uniform, holding her commission, ready to take their share—aye, and more than their share—of the risks and hardships of warfare. We are determined that there shall be no failure, either in theory or in practice, to treat them with the respect to which they are entitled." Following these words of promise, his lordship said that the army medical staff and the medical staff corps would be consolidated into a corps with the same

war; but that does not go far to do away with the general inadequacy of the civilian who has but recently been made a military officer. The prosecution of war is not a mere matter of fighting qualities; it is a science, and a progressive science at that. Our Army Medical School is not a mere ornament; it is a most necessary institution, designed to teach the newly-appointed assistant surgeon many things which the degree-conferring school has not taught him, but which it is indispensable for him to know if the army is to profit by the best that is in him.

Besides the numerical insufficiency of our trained military surgeons, we have had to contend with inadequate numbers of volunteer medical officers and the various noncommissioned officers and enlisted men serving under them. "The surgeons," says our special commissioner, to whose report on Camp Wikoff, published elsewhere in this issue, we would refer the reader, "were on many days able to do little else than keep the record of admissions and discharges." Surely they should be spared such a purely clerical duty when their professional services are so much needed by the men from Santiago. "The force of nurses and orderlies," our commissioner goes on to say, "was much less adequate, however, than that of doctors." In short, it is the old story of being expected to make bricks without straw. Camp Wikoff, we are aware, cannot justly be compared to such a general hospital at the base as is a feature of well organized armies, for the conditions under which it was established were altogether anomalous. Still, such a hospital must readily suggest itself for comparison. For a British army general hospital at the base, for example—one intended to accommo-

military titles as other officers of the army up to the rank of "colonel"—the titles, of course, not conferring any right of command outside the corps; and that Her Majesty the Queen had signified her intention of bestowing upon the newly-formed corps the title of the Royal Army Medical Corps. This clear statement seems to us to redeem the happy promise. An officer in such a royal corps, called by a familiar military title, and enjoying within his corps the position of other officers in the army of his own rank can no longer be regarded, or suspect that he is regarded, as other than an integral part of the army, for his military and medical status are alike defined and certain. There is here no question of relative rank or of substantive rank whatever. He will enjoy actual rank. The fact that the title of "general" will not be granted save in the compound expression of "surgeon-general," appears to us to be a reasonable reservation in view of Lord Lansdowne's declaration that the present policy of the War Office is to restrict the number of officers bearing the title of general to those officers who may be required to fill one of a limited number of appointments, all of which will involve general command in the army and fitness to command troops in the field. Under such a restriction, no departmental officer will be able to reach the rank of general officer. But surely the title of surgeon-general is an honorable and well-sounding appellation, conveying the high rank, both military and special, which is held by its bearer. We congratulate the Army Medical Staff on the successful issue of their claims for redress. With a definite military status the service should again become popular, while with

date five hundred patients — the allowance, we are informed, is as follows: A deputy surgeon-general in command, with a surgeon-major as secretary, eighteen other medical officers, a quartermaster, eleven nursing sisters, three sergeants-major, thirteen staff and other sergeants, a bugler, twelve corporals, ninety-four privates, and twenty-five batmen, or soldier servants. In other words, there is a force of twenty medical officers, a hundred and forty-nine non-commissioned officers and men, and eleven women nurses to take care of five hundred patients, and that, too, ordinarily under conditions far less taxing to the force than those that have necessarily prevailed at Camp Wikoff. The responsibility for the discrepancy between such an array and ours does not lie with the surgeon-general of the army or with the system on which the medical service of the army is organized, in so far as its organization is not hampered by legislative restrictions. It lies with the people. Let them make it plain to their representatives in Congress that at last they realize the niggardliness with which the medical corps of the army has been treated, and are resolved that the mistake shall be remedied.—*N. Y. Medical Journal*, Sept. 17, '98.

THE LIMITATIONS OF MILITARY MEDICAL AID.

In another column we publish an account of the medical arrangements of the British forces operating in the Soudan. Each brigade has five field hospitals allotted to it, and the cavalry division and the artillery corps one each, making a total of twelve field hospitals in all. The establishment of a field hospital consists of four medical officers, one quartermaster, and forty-five non-commis- the gaps in its ranks adequately filled, other grievances—for example, the difficulty of obtaining leave and facilities for pursuing scientific investigation—must disappear. Finally, to Lord Lansdowne the whole profession owes a debt for his outspoken words in appreciation of the medical men of the army. It was impossible to hear them, and we know that it will be impossible to read these words, without feeling that they must exercise a vast influence for good in serving to heal the breach of many years.—*The London Lancet*, May 7, 1898.

THE ROYAL ARMY MEDICAL CORPS.

The uneasiness which was beginning to be felt at the delay in the appearance of the promised new warrant as to the medical service of the army has been removed by its promulgation on July 1st. The text will be found at page 131. The scheme is practically identical with that foreshadowed by Lord Lansdowne at the banquet given by the Lord Mayor of London to the medical profession on May 4th. The Medical Department is transformed into the Royal Army Medical Corps, and thus becomes an integral part of the army. The officers of the corps have purely military titles, which carry with them army rank. The vital points of title and rank, for which we have so long and so strenuously contended, are thus at last conceded. The medical officer is placed in a position corresponding to the dignity of his profession and necessary for the efficient discharge of his duty. On this not only the service, but the nation, are to be warmly congratulated. Congratulations not less warm are due to the Marquis of Lansdowne, who has had the courage to do what as a statesman he felt

sioned officers and privates; so that the entire force represents forty-eight medical officers, twelve quartermasters, and five hundred and forty rank and file of the medical corps. Some ten additional medical officers with the regiments or employed on the lines of communication, raise the total of surgeons to fifty-eight. In addition to this will be a stationary hospital of two hundred beds (not one hundred, as stated in the *Lancet*) at Atbara, the establishment of which consists of a brigade surgeon with eight medical officers, a quartermaster, a sergeant-major, and seventy-five rank and file of the Royal Army Medical Corps. In addition to this there will be, we presume, although it is not so stated, the usual complement of one "bearer company," consisting of three medical officers, a quartermaster, and sixty-six non-commissioned officers and men, attached to each brigade, whose duty it is to apply first aid on the scene of action and to clear the front of wounded by removing them to the dressing station, whence they are carried rearward to the first field hospital. And this is the provision for a force not a quarter the size of that employed in our operations in Cuba.

In spite, however, of this apparently lavish provision, when viewed in comparison with our own, the *British Medical Journal* for September 3d utters the following significant warning: "The fact of the matter is that our little wars, with only a handful of wounded to be dealt with, have rather spoiled both officers and men, who expect the luxuries of civilization in the heart of the Soudan. War cannot be made with rose water, and should we ever engage in a European war, the sick and wounded may have to learn a sad lesson of real suffering and pri-

to be best in the interests of the army in spite of determined opposition on the part of some, at least, of his military advisers. The medical profession will ever feel grateful to Lord Lansdowne for this great reform, and we have no doubt whatever that in time even those who cling most obstinately to the narrow traditions of a fighting caste will also come to recognize the benefits which it must produce. But what is more important, the nation will be grateful for the removal of a condition of things which was not only a scandal, but a source of inefficiency and a possible cause of disaster.

At the present day an efficient medical service in the field is an essential condition of a successful campaign. In consequence of the unpopularity into which an unhappy policy had brought the medical service of the army, it had fallen into a state almost of atrophy which was in the highest degree dangerous. Spirited young men who had any prospect of success in civil practice naturally did not care to enter a service in which their profession was treated as a stamp of social inferiority, and in which they were personally exposed to intolerable slights. The warrant will inspire new confidence in the fair dealing of the government, and will, therefore, it is to be hoped, dissipate the dark cloud of unpopularity which has so long hung over the service, and once more make it what it ought to be—a career attractive to some of the best of those who enter the medical profession.

It is to be hoped that the new rank and titles will be made to apply to such retired officers as are still liable to be recalled to active service up to the age of fifty-five, and to those who are employed at station hospitals up to the age of sixty-five.

vation, when the number of wounded to be dealt with may be so great that hours, if not days, may elapse before they can all be attended to."

In another column of the same issue, the editor says: "The battles of the future between troops armed with quick-firing weapons of long range and precision must produce a number of wounded men so enormous that it will be quite beyond the means of any existing medical service of any army of any country effectually to deal with them at once. The romance of war has gone, and we have only its horrors. The modern surgeon can do a great deal more for his wounded man when he gets to him than his predecessor could do. But he will not get to him, because he will be overpowered by numbers. It is doubtful whether the public understands all this, but it may not be inopportune to call attention to it, because men's eyes are still dazzled by the false glamor of war, and there is a comfortable disposition to believe that organization is now so good that, between the medical services of the armies and the Red Cross societies, the wounded will be quickly treated. They will not be quickly treated, simply for the reason that in a big European war they would be so numerous that no organization now existing or likely to be called into existence would be able to deal with them."

We commend these words to the consideration of those in this country who are apparently prone to imagine, in spite of Colonel Senn's assurance to the contrary, that war *can* be conducted in parlor cars and clubhouses, and to censure the medical department for not accomplishing the impossible.—*N. Y. Medical Journal*, Sept. 17, '98.

These officers are either actually in command of men of the corps, or may, at any time, be placed in command of them, and it is obvious that if they retain the old compound titles and do not possess army rank, confusion will be apt to occur. This matter will doubtless be dealt with in a subsequent warrant as will also the regulation of pay and allowances, for Lord Lansdowne has given the assurance that the emoluments of the service shall not be diminished.

The one point in the new scheme as to which any difference of opinion is likely to arise is the title of the officers at present designated surgeon-major-generals. As has before been explained in the *British Medical Journal*, officers of corps cease to belong to the corps when promoted to a rank higher than that of colonel and pass to the general staff of the army. According to the new warrant, medical officers selected for the highest administrative ranks are to have the title of surgeon-general. It is not to be denied that this compound title is, in the new dispensation, something of an anomaly. These officers will be in command of subordinates, with purely military titles. There were, however, difficulties in the way of granting purely military titles to medical officers not forming part of a corps the name of which defined their position and function, nor has any satisfactory solution of the difficulty been suggested on behalf of the medical officers. As the result of extended inquiries among officers of the Army Medical Department of various ranks, and among members of the civil branch of the profession who are in touch with the service, we have satisfied ourselves that the

THE NATIONAL CRY.

The importance of the Medical Department was never more keenly apparent than at the present time, and yet what was done? The highest official in the Medical Department is a brigadier-general, and only five medical officers with the rank of colonel, and seven lieutenant-colonels. For the army major-generals were in abundance, brigadier-generals by the dozen, and colonels were turned out by the hundreds. Many of the brigadier-generals in brand new uniforms and glittering staffs never found a command, but their names remained on the pay-roll just the same. Many of our newly-fledged colonels could not handle a musket to save their lives; and some of them even attempted the unusual feat of mounting the horse from the right side. In the face of all these appalling defects of army service the brunt of criticism continues to fall on the surgeon-general and his hard-working officers in the field. Much has been said of the mismanagement of Camp Wikoff. Considering the limited transportation facilities, and the fact that in less than three weeks more than 3000 patients have been cared for, it is a source of gratification that so much has been accomplished, largely through the energy of the chief surgeon, Colonel Forwood, and Majors Brown and Heitzman. The hospital tents go up like mushrooms, day after day, and at the present time 2000 patients are well sheltered and well cared for. No lack of medical supplies at this time. The surgical ward in my charge was completed to-day and is already crowded with patients.—Dr. N. Senn, in *Journal of Am. Med. Assn.*

selection of the title of surgeon-general to designate officers of the rank in question is a solution of the difficulty which will be accepted as satisfactory by the medical officers and by the profession. It is in itself a title which has associations which may well make any man proud to bear it.

Another point in connection with the new order of surgeon-generals may be mentioned. According to the present regulations, although they rank as major-generals, they have not the privileges of that rank in regard to the age extension for retirement, the surgeon-general being compelled to retire at 60, while the major-general can serve on to 62. No doubt when the details of the scheme are being arranged, this will receive attention. Surgeon-generals are as a rule more likely to be of use when over 60 than major-generals, whose work requires more physical and less intellectual activity than that of medical officers.

By the last clause of the new warrant the regimental medical system of the Household Brigade is practically abolished. The few officers concerned are to be "seconded" officers on the establishment of the Royal Army Medical Corps, and as they die out or retire, "attached" medical officers will have charge of the Guards regiments.

Other grievances from which medical officers now suffer—such as the inequalities of home and foreign service, the want of "study leave," and the frequent moving about from station to station—will, to a large extent, be remedied without the need for new regulations when the service ceases to be undermanned as it is at present.—*British Medical Journal*, July 9, '98.

ABSTRACTS.

The Treatment of Scars.—Mr. Golding Bird, F. R. C. S., Surgeon to Guy's Hospital, London, in a clinical lecture reported in the *Clinical Journal* for April 13th, says, in reference to the distortion produced by burns and scars: "Never divide a scar if you can help it." How, then, he asks, are we to treat cases of this sort? We treat them on the same principle as you treat a sailing boat when the wind overfills the sails—that is, let go the sheet. For there is an insertion as well as an origin to every cicatrix, and they ramify into the skin around, and take firm hold. The plan, then, is to make a V incision into the healthy skin at one or both attachments of the cicatrix, and dissect them back; or, in other words, dissect up the insertion or the origin of the scar.

Isolation After Diphtheria.—Dr. B. M. H. Rogers, of Bristol, England (*Bristol Medico-Chirurgical Journal*, June, 1898), discusses this question. He says: "I have searched medical literature for some records of bacteriological examinations conducted systematically to discover how long the bacillus may remain active in the throat. Dr. Hermann Biggs,[1] of New York, examined 405 cases with this object in view, and in 245 no bacilli were found to be present three days after the disappearance of the membrane; so that in over fifty per cent. a very short period of isolation is required.

"But in 103	they could be found	for	7	days
" 34	"	"	12	"
" 16	"	"	15	"
" 4	"	"	21	"
and in 3	"	"	35	"

Allowing, then, a week for the membrane to be present, at least five cases were dangerous for forty-one days.

"Observations of a similar character, but for a different object, were conducted by Dr. White.[2] He was testing the value of antiseptic sprays, etc., on the vitality of the bacillus, and in his observations the extreme limit was found to be, in spite of the attempts to destroy the parasite with a peroxide of hydrogen preparation known as pyrozone, thirty-three days from the commencement of the disease; whilst in one laryngeal case the bacilli were found forty days after admission, and in another forty-eight days after the disappearance of the membrane.

"Abel[3] has recorded a case in which for sixty-five days after the disappearance of the membrane the bacillus could be cultivated, and Dr. Macgregor,[4] in an article that appeared subsequent to the preparation of this paper, gives a case in which active bacilli were found in December in the throat of a boy aged six months, the attack of diphtheria having been recovered from in July; and Schafer[5] cites cases in which they were found seven and one-half months after the attack."

He concludes that "the lesson that is to be learnt from these cases seems to me to be that no case should be allowed to mix with healthy per-

[1] *Med. Rec.*, 1894, xlvi. 323. [2] *Ibid.*, 545. [3] *Centralbl. f. Bakteriol. u. Parasitenk.*, 1893, xiv. 756; see *Brit. M. J.*, 1894. i. Epitome, p. 16, and *Am. Year-Book Med. & Surg.*, 1896, p. 993. [4] *Lancet*, 1898, i. 716. [5] *Brit. M. J.*, 1895, i. 61.

sons until bacteriological examination has shown that the throat and nares are free from the bacillus, instead of mere isolation till the membrane appears to have gone. I believe that if this were more rigidly adhered to we should check the spread of diphtheria, which now appears in a most inexplicable way."

Libel and Slander as Affecting Physicians.—Henry Leffman contributes to the *Philadelphia Polyclinic* a syllabus of the law relating to this important subject:

Libel consists in the utterance of any communication, otherwise than by oral speech, unjustifiably accusing private individuals, officials or governments of anything tending to make them ridiculous or injure them in reputation or public esteem. Slander is an oral statement unjustifiably accusing a person of a crime, a loathsome disease, incapacity or dishonesty, or of any fault which tends to injure the person or his business. The courts have decided that an accusation may be slanderous or not according to the vocation of the accused. To accuse a physician of general professional ignorance or malpractice is actionable *per se*, but to state that in a special case he was at fault is not slanderous, unless special damage is proved. A retired physician, since he no longer gains his living by his profession, may be accused with impunity of what would "slander" a man in actual practice. Slanderous words uttered in one State may not be actionable in another State unless proved to be so also in the place uttered. A person uttering slander to a second party, who repeats it to the detriment of an individual, may escape responsibility if the damages result from the utterance of the second party, and not from that of the originator. In case of libel, any accusation holding a person up to scorn or ridicule, whether professionally or as a private person, is actionable. A physician who attempts to achieve notoriety by puffing himself cannot recover damages from those who further his attempts. It is slander to falsely attribute a contagious disease to a person, unless a statement was necessary and there was a mistaken diagnosis. A physician condemning any article used in medical practice is liable to the manufacturer, if the said physician's statement be incorrect.

How Coffee Should be Prepared.—Many habitual drinkers of coffee look upon the preparation of the beverage as a commonplace procedure, within the competence of any ordinary scullion or kitchen maid; but connoisseurs, of whom a few are still to be found, being aware that silk purses cannot be manufactured out of sow's ears, always insist on superintending the purchase of their own coffee berries. They know that just as pears and potatoes differ in quality one from the other, so it is in the case of coffee; and some even assert that like good wine the berries when kept in a dry place are improved by time. A genuine connoisseur will, morever, himself supervise the roasting process over a brisk clear fire, and as soon as the berries have assumed the tint of a Capuchin's robe he will order their storage in air-tight receptacles. The average English cook generally seeks to prolong the roasting until the berries are nearly jet black, to the utter annihilation of the whole of the aroma, and also a great part of the flavor. An infusion after this barbarous treatment is much darker in color than it should be, but only an ignoramus would be deluded by this

fictitious appearance of strength. Each separate brew of coffee should of course be made with freshly ground berries. This elementary dictum seems to be pretty generally recognized among coffee drinkers, and yet, practically, the rule is far more honored in the breach than in the observance. Coffee may be made from freshly-ground properly roasted berries of a high class, and yet be vile. When this undesirable consummation takes place it is the water which is at fault. Coffee made with hard water—water that will not boil vegetables properly nor raise a lather freely with good soap—is difficult to clarify, tastes flat, and is not easily digested. If the water is chalky, turning muddy after boiling for a few minutes, the coffee will look strong and good, but its taste will betray it, and there will not be an atom of aroma. Coffee, to be both wholesome and drinkable, should be perfectly limpid, brown in color but not black, and above all it should be endowed with the characteristic bouquet. The coffee served in Oriental lands has obtained a degree of renown which is decidedly beyond its deserts. The rough-and-ready mode of preparation in vogue, no doubt, helps to preserve the aroma, but the beverage is not only muddy but gritty, and it could not be drunk habitually at meals or in large quantities without injurious consequences. Distilled water, notwithstanding its insipidity, makes the very best coffee. Ordinary potable water invariably contains salts which either destroy or mask the finer and more delicate qualities of an infusion, whether the substance infused be coffee, tea, or medicinal.—*The Scalpel.*

Bromoform in Whooping-Cough.—Marfan (*Journal de Med.*, March 10, 1898) makes a contribution to the therapeusis of whooping-cough. The indications for treatment he divides into two periods—that of the spasmodic condition, and the broncho-pneumonic condition. For the first the writer recommends three remedies—belladonna, antipyrin, and bromoform. In the case of belladonna, the quantity should be daily increased until the spasmodic attacks are reduced. The great drawback of the drug is that it is badly tolerated. Antipyrin should be increased daily until the maximum dose is reached. Depressing action is, however, likely to induce dangerous symptoms. Bromoform is likely to replace both these drugs. It is soluble only in alcohol and glycerine, and its administration is somewhat difficult, but Marfan prescribes it with an emulsion of almond oil and mucilage flavored with orange. The first symptom of tolerance is drowsiness. It has no injurious action on broncho-pneumonia. A child of six months old should receive three drops; eight drops when two years old; and when over five years of age, from twenty to thirty drops.

The Cadaver Humanum: Its Conservation.—Once and again *The Lancet* has drawn attention to the ingenuity shown by Italian surgeons in immunizing the dead subject from decomposition, and the theme has acquired fresh interest from its recent handling by Signor Luigi Ferrara. Throughout the peninsula, whether in its anatomical museums or in the family vaults of its *campi santi*, wonderful specimens of such successful immunization are to be seen; but none of these can approach the perfection attained by Dr. Efisio Manini in a *metier* which may well be called national. For forty years that Neapolitan surgeon has striven to improve on the methods hitherto in practice, and his results, as known to the pro-

fession, throw all previous successes into the shade. "Without incisions"—so I am informed—"without injections, simply with a series of baths, he has succeeded in preserving the human subject from all risk of decomposition whatever." His *modus operandi* consists of three stages. 1. Provisional desiccation, the so-called "conservazione allo stato coriaceo transitorio" (preservation applied to the corium in its transition period). Bodies so prepared and immersed in a liquid of his own devising may regain their primary freshness and be thereafter subjected to anatomical operations or demonstrations like the ordinary cadavera of the dissecting room. 2. Petrifaction of the body so prepared—a process which, in Dr. Manini's hands, is so effective that the density as well as the consistency of marble is attained, insomuch that a few hours after the completion of this stage a key brought in sharp contact with the surface elicits a true metallic ring from the body. 3. The restoration to this desiccated and petrified subject of the freshness, the softness, the flexibility, and even the complexion of the natural state. As described to me the bodies so treated come from Dr. Manini's hands as if asleep, or in a condition of temporarily suspended animation. Well-known Italians dead within the last decade—like Benedetto Cairoli and Sanfelice—have been thus "stereotyped," so to say, for posterity and become to the anatomist, the anthropologist, and the medical jurist an object-lesson in the prosecution of their respective interests. In the last of these—that concerned with the investigation of capital offenses—the gain to the resources of justice would be immense when contrasted with the means it has to fall back upon in Paris, for instance, where the laborious process of keeping the dead body continually under waves of fresh air exhausts itself in a few days' time. Dr. Manini has been sustained in his life-long work by the sympathetic encouragement of surgeons like Nelaton and Billroth, and of anatomists like Richard Owen and Sappey. It is well known that had Napoleon III. kept his throne for a few months longer he would have placed the Neapolitan surgeon at the head of an anatomical museum specially devoted to the products of his *metier* and his methods, while it is an open secret that Dr. Guido Baccelli had decided to signalize his tenure of the portfolio of Public Instruction by making Dr. Manini director of a sanitary institution, when the fall of the Crispi administration frustrated his decision. The veteran Neapolitan surgeon is now well stricken in years and Baccelli's successors in office have little time to lose if their country is to be spared the chagrin of again seeing one of her scientific *bene-meriti* receive from abroad the recognition denied to him at home.—*London Lancet.*

The First Removal of the Stomach.—In the *American Journal of Surgery and Gynæcology* for April, Dr. J. Montgomery Baldy, of Philadelphia, referring to the case of excision of the stomach by Dr. Bernays, of St. Louis, points out that he himself removed the stomach for sarcoma four years ago, antedating even Dr. Schlatter's famous case. The case was reported and the specimen shown at the Pathological Society of Philadelphia. All but a small portion of the stomach was found to be involved, as was also the mesentery throughout the whole abdomen. A large mass of disease was left high up and involving the œsophagus. To this latter fact is attributed the death of the patient, who withstood the shock of the operation.

Elements of Histology. By E. KLEIN, M. D., F. R. S., Lecturer on General Anatomy and Physiology in the Medical School of St. Bartholomew's Hospital, London, and J. S. EDKINS, M. A., M. B., Joint Lecturer on and Demonstrator of Physiology in the Medical School of St. Bartholomew's Hospital, London. In one 12mo. volume of 506 pages, with 296 illustrations. Cloth, $2.00, net. Lea Brothers & Co., Philadelphia and New York.

Professor Klein has furnished a masterly guide to a subject which is fundamental, underlying even anatomy. It is scarcely surprising that five editions should have been demanded, since no text-book is more universally recommended in the college lists It appeals to instructor and student alike by its clearness, conciseness, excellent type arrangement and its beautiful illustrations. The present issue is a thorough revision in every respect, the text having been increased by about 125 pages and 101 new engravings having been added to the previously rich series.

A Text-Book of Practical Therapeutics: With especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. With special chapters by DRS. G. E. DE SCHWEINITZ, EDWARD MARTIN and BARTON C. HIRST. New (seventh) edition. In one octavo volume of 770 pages, illustrated. Cloth, $3.75; leather, $4.50, net. Lea Brothers & Co., Philadelphia and New York.

The success of Professor Hare's Text-Book of Practical Therapeutics is phenomenal and well merited. The first edition appeared in 1891, and the seventh follows in just seven years. The author has diligently improved his opportunity by thoroughly revising his work at each of the frequent calls for a new edition, so that the medical public may look to it for the latest real advances in its most progressive department, and may trust its authority.

The favor it has received is owing to its very ingenious plan and to masterly execution. The volume consists essentially of two parts, one on drugs and other remedial measures, and the other on diseases, each being arranged alphabetically for convenience of reference. The rational classification of drugs is given succinctly in a few pages. Each of the two parts is written with the other in view, and copiously cross-referenced. The reader desiring to know all the material facts concerning a drug can

instantly find the information in the first half of the book with references carrying him to the applications in the various diseases discussed in the second part; or if desiring knowledge concerning the treatment of any special disease, he can quickly find it under the alphabet of diseases, with full therapeutical directions and prescriptions for various stages and complications, and references to the first part where all details concerning the individual drugs are given. To consummate quickness of reference Dr. Hare has prepared two indexes, likewise unique, one of drugs, and the other of diseases and remedies, the latter being annotated with suggestions, doses and other information of the most useful kind. In a word, Dr. Hare's work is not only an unrivaled text-book on therapeutics, but obviously a most convenient as well as authoritative guide to the practice of medicine.

Exiled for Lese Majeste. By JAMES T. WHITTAKER. Duodecimo, pp. 362 Cincinnati: Curts & Jennings, 1898.

Dr. Whittaker has written a delightful novel; one of the best we have read for many a day. His work will be appreciated and he will rank with the greatest of Americun authors.

Modern Surgery. By JOHN CHAMBERS DA COSTA, M. D., Clinical Professor of Surgery, Jefferson Medical College, Philadelphia, and Surgeon to Philadelphia Hospital, etc. Published by W. B. Saunders, 925 Walnut Street, Philadelphia; 1898.

This book is a clear, concise and practical work on general and operative surgery. It is a great improvement over the manual. The classification and description of the subjects give the reader a clear idea of the disease and the operations. The chapters on bacteriology and asepsis and antisepsis are up to date on those subjects. The illustrations are excellent. The book is one that will fill the place long needed, and it is well adapted to the needs of the student and busy practitioner. The impressive style of the author makes it a very readable book. We predict an extensive sale for Da Costa's Surgery.

Hypnotism Explained. By REV. LOUIS F. SCHLATHOELTER, Pastor of Immaculate Conception Church, Moberly, Mo. Published by the author. Duodecimo, pp. 101. Price, $1.00.

The author has devoted serious and careful study to the subject of hypnotism. For a long time he thought that the general public should not be made familiar with the science of hypnotism, believing it a dangerous subject; but he has now come to believe that it should be studied by laymen as well as professional men.

The subject is treated under the following headings: The Science of Hypnotism; Hypnotism Defined; The Power of Suggestion and Its Every-Day Use; Hypnotism from a Moral Standpoint; Mind-Reading; Telepathy, and Spiritism. The entire subject is ably handled and the book is well worth reading.

Illinois Medical College.—This popular institution graduated a class of twenty-six on September 14th. The doctorate address was by Prof. Wm. Rittenhouse.

Death of Dr. De Vault.—Dr. W. B. De Vault, a respected citizen of Warrentón, Missouri, died in St. Louis, September 11th, from tumor of the brain.

The Jefferson Hospital.—This institution, adjoining the St. Louis College of Physicians and Surgeons, is filled with patients. Dr. Waldo Briggs is the surgeon.

Death of Dr. Owen.—Dr. Abraham M. Owen, a prominent physician and surgeon of Indiana, died of heart disease at a sanitarium in Evansville Sunday. He was a native of Madisonville, Kentucky, and was forty-nine years old. He was one of the organizers of the Pan-American Medical Congress.

American Academy of Railway Surgeons.—The fifth annual meeting will be held at the Auditorium, Chicago, on October 5, 6 and 7, 1898. Among the papers promised are the following:

"Anæsthesia," R. H. Cowan, M. D., Assistant Chief Surgeon N. & W. R. R., Radford, Virginia; "Traumatic Injuries of Peripheral Nerves," D. S. Fairchild, M. D., Surgeon C. & N. W. R. R., Clinton, Iowa; "Injuries of the Genital Organs," Milton Jay, M. D., Chief Surgeon C. & E. I. R. R., Chicago, Illinois; "The Radical Cure of Hernia," W. J. Mayo, M. D., Surgeon C. & N. W. R. R., Rochester, Minnesota; "Concealed Meningeal Hemorrhage," H. Reineking, M. D., Surgeon C. & N. W. R. R., Sheboygan, Wisconsin; "The Interment of Ericsen," W. J. Galbraith, M. D., Omaha, Nebraska; "Physical Examination for Railway Service," J. F. Pritchard, M. D., District Surgeon C. & N. W. R. R., Manitowoc, Wisconsin; "The Hygiene of Railway Injuries," G. P. Conn, M. D., Chief Surgeon C. & M. R. R., Concord, New Hampshire; "Conservatism in Railway Surgery," H. Hatch, M. D., Surgeon C. B. & Q. R. R., Quincy, Illinois; President's Address, "The Higher the Order of Railway Surgery the Greater the Protection to the Employe, the Passenger and the Company," R. Harvey Reed, M. D., Assistant Surgeon U. P. R. R., Rock Springs, Wyoming; "Convenient First Dressing of Fractures with Samples," E. H. Trickler, M. D., Surgeon T. & O. C. R. R., Cutler, Ohio; "Surgical Treatment of Some Varieties of Disease of the Prostate and Seminal Visicles," G. E. Benninghoff, M. D., Surgeon W. N. Y. & P. R. R., Bradford, Pennsylvania.

Mississippi Valley Medical Association.—We learn that the coming meeting, to be held in Nashville, October 11–14th, will undoubtedly be a great success. A large number of papers are promised.

Moved.—Dr. Lowry, of Grand Junction, Iowa, has moved to Des Moines.

College Election.—At the annual meeting of the Board of Trustees of the Sioux City Medical College, Dr. H. A. Wheeler was elected Dean and Dr. W. Jepson Secretary of the Faculty. Dr. G. W. Beggs was re-elected President of the Board of Trustees and Dr. J. N. Warren Secretary. Dr. E. Hornibrook, of Cherokee, resigned as Professor of Gynecology, and Dr. J. N. Warren was elected as his successor.

OUR PHARMACEUTICAL FRIENDS.

THE NATIONAL WHOLESALE DRUGGISTS' ASSOCIATION holds its annual meeting in this city during October. Theo. Wall is chairman of arrangements, and is ably assisted by a committee from the local jobbers.

MR. CONRAD P. BABB has been added to the St. Louis force of the Searle & Hearth Co.

CHAS. CAFFAL, the genial manager of Judge & Dolph, is enjoying a much-merited rest, and incidentally securing a stock of fish stories for the fall trade.

THE PHENIQUE CHEMICAL COMPANY announces a largely increasing business.

THE ANTIKAMNIA CHEMICAL COMPANY has a reputation for originality in advertising. They are now mailing a beautiful souvenir, "Faith."

DR. H. G. GOULD, representing Lehn & Fink, is a welcome visitor in all physicians' offices.

WE LEARN from the local offices of Parke, Davis & Co. that the sales of anti-toxin are unusually large this month.

DR. WILLETT, formerly manager of the Paul Paquin Laboratories, is now presenting the card of Meyer Brothers Drug Co.

FRANK GARDNER has resigned his position with Meyer Brothers Drug Co., and, with Mr. Barada, has purchased the Thompson Malt Extract Laboratories at Chicago.

OUR pharmaceutical friends show their appreciation of the St. Louis field by the energy displayed in pushing their various lines. The Searle & Hearth Co., Parke, Davis & Co., Wm. R. Warner & Co., and Eli Lilly & Co., have increased their local forces during the present year.

THE PUBLISHER'S DESK.

Coca Erythroxylon.—We need not enter into a full description of the history of the erythroxylon coca, as we believe that most medical men are fully acquainted with the principal facts concerning the plant. We may, however, recall to mind that the leaf is the only part of the plant used. Very much depends, therefore, upon the plucking of the leaf, and the time at which it is plucked; the subsequent care of the leaf being matter of considerable importance, and affecting very materially the preparations made from it. M. Mariani was the first in Europe who took up the study of the plant, and over thirty-five years ago commenced manufacturing for the medical profession the various specialties associated with his name, viz., "Vin Mariani," "Elixir Mariani," "Pâte Mariani," "Thé Mariani," "Pastilles Mariani," etc., preparations which are known all over the world, and which have acquired their well-known reputation by their purity and efficacy. The stimulating and strengthening property of the leaf in its natural state has been tested by experienced travelers and botanists during several centuries, and it is this invigorating property which the physician wishes to bring into use, and which he is enabled to do in a palatable form by means of "Vin Mariani," this wine being indicated where there is great depression, long-continued exhaustion, and where a special stimulative action is desired. "Vin Mariani" is agreeable, palatable, imparting by its diffusibility an agreeable warmth over the whole body, and exciting functional activity of the cerebro-spinal nerve centers. We have frequently prescribed this wine, and we can, from practical experience, recommend it.—*The Provincial Medical Journal*, London, Eng.

Office of Missouri Commercial Laboratory,
Analytical and Technical Chemists,
St. Louis, Mo., March 12th, 1898.

The Tasteless Quinine Co., Asheville, North Carolina.

Dear Sirs:—Replying to your request of March 3d to analyze your tasteless quinine, we obtained an original package from Meyer Bros. Drug Co., and herewith hand you the following result:

Your Grove's tasteless quinine is a mixture of pure quinine with a foreign matter, which latter is absolutely indifferent and harmless. This foreign product has only the purpose of rendering the quinine tasteless. Besides, we can state about the strength of your product that one and one quarter ($1\frac{1}{4}$) grains of it is equivalent to one (1) grain of bitter quinine sulphate. MISSOURI COMMERCIAL LABORATORY.

Dr. Wm. Minor, President; Dr. B. G. Hartmann, Secretary.

Micajah's Medicated Uterine Wafers, made by Micajah & Co., of Warren, Pa., have given great satisfaction in the hands of many practitioners. In cases of engorgement of the cervix-uteri, they afford marked relief; in fact, in all inflammatory conditions they are highly beneficial, and in cases of endometritis decided improvement has been reported from their use. One advantage in this treatment, is the ease of application. Send for sample.—*Kansas City Medical Record.*

Flavell's Elastic Trusses, fitted with their celebrated pneumatic pads, can be worn day and night with comfort and ease; are far superior and give more general satisfaction to patients than any covered iron appliance. A descriptive circular can be had at Flavell's, 1005 Spring Garden street, Philadelphia, Pa.

A Cleansing Agent in Diseases of the Nasal Mucous Membrane.—By GEORGE H. STUBBS, M. D., BIRMINGHAM, ALA.—The sheet-anchor in the treatment of hypertrophic rhinitis is cleanliness and free drainage.

I have been using for some time a preparation manufactured by the Kress & Owen Company, of New York, under the name of glyco-thymoline (Kress). It is a wine-colored liquid, bland, alkaline, antiseptic and non-irritating, and, when diluted with three or four times its own bulk of distilled water, makes a most efficient and agreeable cleansing agent for the nasal cavities, and fills every requirement necessary for preparing the mucous membrane for effectual treatment.

At the last meeting of the American Medical Association, a widely-known rhinologist and laryngologist said: "The profession out of reach of the specialist can do more for the relief of patients suffering with chronic inflammatory conditions of the nasal cavities with glyco-thymoline (Kress) and the Birmingham douche than any one preparation I know of."

This, coming from so eminent an authority, is worth repeating; and after a thorough trial of the preparation, I feel justified in endorsing his statement, and believe it to be worthy of this short notice.—*The Alabama Medical and Surgical Age*, March, 1898.

Epilepsy, especially the hereditary non-traumatic form, in nine out of ten cases is due to syphilis. In such cases the bromides, even if administered in large doses, are useless; the attacks return as soon as the effect of the sedative has come off, necessitating larger doses, something that should be avoided.

Alterative treatment is a good deal more rational, and under proper alterative medication better results can be obtained. Henry's tri-iodides, while a powerful alterative, is a palatable elixir which can easily be administered even to small children. We have observed no ill effects from its constant administration.

Rheumatism.—There are many cases of rheumatism in its various forms, which otherwise prove most obstinate and unyielding, but which can be corrected speedily and thoroughly by the use of tongaline liquid or tongaline tablets or tongaline and lithia tablets or tongaline and quinine tablets, as the conditions may indicate, all to be taken at short intervals and washed down with plenty of hot water, as hot as the patient can bear it.

This treatment may be supplemented by the local application of tongaline liquid; or what is a very important fact, the disturbing effects of internal medication upon an irritable stomach and sensitive nerves can be entirely avoided by the external use of tongaline liquid alone.

The affected parts should be sponged first with hot water, then with tongaline liquid, and cloths saturated with the remedy held in apposition by oiled silk bandages, applying heat by a hot water bag or other convenient method to facilitate absorption. Tongaline liquid, in like manner, may be given externally by the aid of electricity.

THE TRI-STATE MEDICAL JOURNAL AND PRACTITIONER.

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CLINICAL LECTURES.

CLINICAL LECTURE.[1]

By DUDLEY S. REYNOLDS, A. M., M. D., of Louisville, Ky.,

Professor of Ophthalmology, Otology, and Medical Jurisprudence in the Hospital College of Medicine.

GENTLEMEN:—Miss Annie P., aged eighteen, was admitted December 31, 1897, with vascular opacity of each cornea, and with complete entropion of the left upper lid. She cannot count fingers with the right eye; does so with the left at ten inches. Chloroform was administered at 2:30 P. M. An incision was made along the free border of the lid, very near and external to the orifices of the Meibomian ducts, beginning at the inner canthus, and extending the whole length of the free border of the upper lid; the line of division extending along the outer surface of the tarsal cartilage. A vertical section, about four millimeters in length, was made at the outer canthus, and another near the inner canthus, corresponding to the outer wall of the superior punctum. With fine pointed scissors the skin was then divided from the upper extremity of the vertical incision, near the inner canthus, to a corresponding point in the vertical incision at the outer can-

[1] Delivered at the Grey Street Infirmary.

thus. Then another section, beginning two millimeters to the nasal side of and above, was carried parallel to the first section of skin, so as to separate the strip of integument two millimeters wide, running parallel with the free border of the lid. Then the portion of skin containing the eyelash was pushed up on the outer surface of the cartilage, and the strip of integument was thrown over into the gap made by the first incision, which divided the free border of the lid. The horizontal wound in the skin was then united with fine silk sutures, causing the divided free border to gape, the strip of transplanted integument occupying the space between the anterior and posterior margins of the free border. A little yellow oxide of mercury ointment was carefully applied to the lash, and no other dressing employed until the next morning, when the eye was flushed with warm borax water. This was repeated during the next succeeding four days, at intervals of two or three hours, in the daytime, the yellow oxide ointment being carefully applied every night. You observe now, January 13th, that the cornea is comparatively clear. There is no swelling of the lid, which presents an entirely natural appearance. The free border seems to be about the natural thickness; the lash stands uniformly in the proper position, not a single hair appearing to be maldirected. The perfection and beauty of this result are by no means accidental. In the first place, it is necessary that careful division shall be made of the free border of the lid so as to carry all the tissue, containing the hair follicles, along with the detached skin near the free border, to a higher position on the outer surface of the tarsal cartilage. The next point of importance is a careful limitation of the vertical incisions. They should not extend more than four millimeters upward, and should correspond in depth with the division of the free border. If the Meibomian ducts are not wounded, and none of the hair follicles are left attached to the cartilage, the common sources of failure will be avoided. The next point is to make symmetrical division of the skin, and of the underlying structures, down to the surface of the cartilage, connecting the two vertical incisions. The next incision should include the skin only; it should be about two millimeters longer at each end. It should not be more than two millimeters wide, and I find it best to separate the skin by dividing the subcutaneous connective tissue with the scissors. The strip of integument to be transplanted being now entirely freed from any attachments beneath it, should be simply picked up and laid over below the lash, after which the external horizontal wound in the skin should be closed with interrupted sutures of fine silk. These should not be passed deeper than the thickness of the true skin. The transplanted bridle of integument will be held by the slight tension to which it is subjected in its new situation, in almost exact apposition, and need never be sutured. This young lady is now able to read large type, and is vastly improved in appearance as well as comfort.

Eliza B., aged sixty-one, was admitted to the Infirmary on the 7th of December. She had cataract extracted from the right eye. Iridectomy was done on account of posterior synechia. She made uninterrupted recovery, and on the 15th of December the lens was extracted from the left eye, through the dilated pupil, without accident. Both eyes are now free from irritation. With the right eye she sees with $+12.OOD=\frac{6}{XII}$ Snellen. With the left eye she sees with $+12.OOD=\frac{6}{IX}$ Snellen. This is a good result,

being sufficient to indicate the patient's ability to read ordinary type, such as long primer or brevier, without difficulty. There are two interesting points in the case. First, she had suffered at some time in the past, an attack of iritis in the right eye. Iridectomy was done, and the lens extracted, and she made uninterrupted recovery. The extraction in the left eye was made through the dilated pupil, and was even more rapid.

John G. P., aged forty-four; came last Monday afternoon with a punctured and lacerated wound of the cornea, in the right eye. A piece of wood flew and struck him with such force as to puncture the cornea, and lacerate it four millimeters in extent, in an oblique, slightly vertical direction, beginning below and to the temporal side of the vertex. Occupying the inferior portion of the wound was a quantity of foreign matter, resembling a splinter of wood. Under the influence of cocaine I attempted the removal of this foreign body, which turned out to be very friable, and came away in small fragments. The process of removal was rendered difficult by the absence of normal tension of the globe, in consequence of the previous escape of the aqueous humor. The temporal side of the pupillary margin of the iris was perforated, and a corresponding puncture of the capsule of the lens was noted. After removing the foreign matter, the eye was flushed with boric acid solution, and a small quantity of yellow oxide of mercury ointment was carefully wiped over the wound in the cornea, and the eye closed with a little cotton wool over the lid, secured by a strip of adhesive plaster drawn from the cheek to the forehead. Tuesday morning it was found that the patient had rested well, and was in a comfortable condition, having no pain in the eye. The dressing was not soiled, and was, therefore, allowed to remain until Wednesday noon, when it was found that the wound had kindly united. A drop of homatropin solution disclosed the absence of synechiæ, and full dilatation of the pupil. The eye was slightly suffused and sensitive to light. The dressing was reapplied. To-day you observe that the eye shows but slight irritation, without photophobia. With a pair of smoked glasses to protect him from the glaring light, he is now at liberty to leave the Infirmary.

Wounds of this kind nearly always result in cataract. In this case it will be inevitable, because the capsule of the lens itself was punctured by the splinter; the wound being large enough to let in the aqueous, must necessarily result in the gradual melting away of a part of the lens substance, and finally the development of complete opacity of the remaining portion. Oblique illumination now shows but a very fine point of grayish white elevation on the surface of the lens, resembling a small mass of compressed cotton wool.

TO WHAT PURPOSE?

When man on earth first began,
  The Doctors' art bore feeble part;
Man then as now his life outran,
  And changed not from Doctors' art.
No matter how learned Doctors grow,
  Death doth come to every man;
All medical art at best doth show
  A moment's halt to Death's command.

—OUTTEN.

CLINICAL REMARKS ON SOME ADVANCED FORMS OF URETHRAL STRICTURE TREATED BY A COMBINED URETHROTOMY.

By REGINALD HARRISON, F. R. C. S., of London, England.
Surgeon to St. Peter's Hospital.

IN SOME clinical remarks I recently offered[1] on the commoner forms of urethral stricture, I reserved for separate consideration certain instances where the methods of treatment then referred to were unlikely to prove of much benefit, for the reasons that either the obstructions were too burn-scar-like and contractile to dilate, or too tough or extensive to divide from within the urethra. In addition to such characteristics, these strictures are not infrequently complicated with fistulæ or tortuous routes in the perineum and scrotum, through which both urine and pus escape. Hence the discomfort of the patient is often greatly added to. Cases answering to this description are generally regarded as being best treated by some form of perineal section, or, as it is sometimes called, external urethrotomy, and it is to this point I desire now to confine myself.

As a contribution to this subject I published a series of cases[2] where the usual operation of perineal section, as undertaken for stricture in the deep urethra, had been greatly simplified, and its safety and efficiency increased by combining with it internal urethrotomy. Strictures of this class now under notice are but rarely impassable to some form of instrument, and as by reason of the urinary fistulæ that so often complicate them, they are seldom urgent in their nature. Time is allowed not only for effecting an entrance into the bladder by the natural way, but also for ascertaining what may be the outcome of some kind of dilatation. Assuming the former is accomplished, though dilatation proves futile, the combined operation probably offers the best solution of the difficulty. In describing it, together with such modifications as I have adopted since the publication of my first paper on this subject, I will take two typical instances in illustration where it was employed.

CASE 1.—A man, aged fifty-one, whom I saw and operated upon in 1890. He had been the subject of a stricture, with a strong tendency to contract for some years, and had undergone no less than six operations for it, including a divulsion by Holt's method and five internal urethrotomies at various intervals and places. For some months before I saw him the stricture had been contracting and closing in spite of the patient's well-directed efforts with suitable bougies to keep it open. Straining to urinate

[1] TRI-STATE MEDICAL JOURNAL, May, 1898.
[2] *Brit. Med. Journal*, July, 1885.

was constant and prevented continuous sleep, and there was some cystitis, with probably pyelitis. It was clear that a free relief must be afforded, as structural kidney complication appeared imminent. I performed an internal urethrotomy for him, as described in my last paper, using for this purpose Teevan's modification of Maisonneuve's instrument, as I thought the latter might not stand the strain put upon it by the cartilaginous character of the tissues that had to be divided. This being done, I passed a full-sized grooved staff (No. 12, English) into the bladder. As the latter was evidently gripped in the deep urethra, I had the patient placed in the lithotomy position, and divided in the median line from without inwards such contracted tissues as remained. I thus opened the urethra and found, by passing my finger first into the bladder and then hooking it forwards along the urethra in the direction of the penile orifice, that the walls of the canal had now been rendered free and unresisting. A full-sized gum-elastic drainage tube (as I have elsewhere described and figured[1] in connection with the larger subject of bladder drainage), was passed into the bladder through the wound and retained. The parts were well washed out with a solution of hydrarg. perchlorid. (1-6000). The drainage tube was finally withdrawn on the sixth day, and the wound soon closed. Eight years have now elapsed since this operation was practiced. The patient remains in good health and suffers no further inconvenience from his urinary organs other than having occasionally to pass a full-sized bougie for himself. I frequently meet him.

CASE 2.—This was a patient, aged forty-five, with a tough contractile stricture, which had resisted dilatation and was complicated with several urinary fistulæ of two years' standing, whom I saw and operated upon in 1892. He was treated in the same way as the preceding patient, and in addition the various fistulæ were opened up and scraped. The result was equally satisfactory and is so far permanent.

Perineal section carried out on these lines has been found to present many advantages. In the first place it is easier to effect a division of the hard and condensed tissues of the perineum, such as generally involve strictures of this kind, upon a fairly large staff than upon a small one, or even upon the shouldered staff which Syme used for marking the commencement of the contracted portion of the canal. The freedom, or otherwise, with which the large-sized instruments move in the canal is sufficient to determine the necessity for proceeding at once with the external section, as well as the precise locality and degree of the contraction that remains.

It may seem at first sight, in combining these two operations, that the magnitude of an ordinary perineal section is increased. This, however, is not the case, as the division of more or less of the obstruction from within the canal has not infrequently proved sufficient to completely clear the urethra, whilst it invariably tends to limit considerably the extent of any external section that may still be required.

Further, it must be remembered that there is no kind of wound involving the deep urethra that heals so kindly or so free from those constitutional symptoms, which occasionally follow operations on this canal, than that where a temporary drain is established for the urine.

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[1] *Surgical Disorders of the Urinary Organs*, 4th Ed.

Again, this point is importantly supported by the results following rupture of the deep urethra from external violence. Cases of this kind, where a perineal section is performed and a temporary drain established, compare most favorably, both immediately and remotely, with those where the treatment consists in the retention of a catheter, when this can be passed. The points of distinction being in the former class of cases the absence of septic symptoms of a serious nature and the more favorable character of the scar that results. There is no worse kind of stricture to manage than that following an extensive rupture of the deep urethra and its treatment by what may be described as the closed method.

It is on grounds such as these that I believe the combined operation proves of much benefit in the treatment of some of the most serious and complicated forms of urethral stricture.

Before concluding these remarks, I will briefly refer to a class of strictures which I have only incidentally noticed. This is the structurally impassible stricture, impassible alike to instruments and urine, and associated invariably with an extraneous route for the urine, probably through the perineum. The latter condition is the result either of nature's effort to provide escape for the urine by abscess and fistula, or of the surgeon's, more promptly and directly, by incision.

In endeavoring to restore a urethra of this kind and to close a well-worn fistula, the surgeon will fully recognize the mechanical and physiological difficulties before him, not only in reproducing a portion of the canal which, to all intents and purposes, is obliterated, but in subsequently fitting it to take up the functions connected with the process of natural or even aided micturition.

It requires no great amount of surgical ingenuity to establish the continuity of the urethra, so far as instrumentation is concerned, but to secure a reasonable degree of control or influence over the restored portion of the canal is by no means certain. On the other hand, experience and trial have not infrequently shown that a good urinary fistula has proved an excellent substitute for a bad urethra.

Another Edison Invention.—The manager of the electrical exposition in Philadelphia asked Mr. Edison to send on a phonographic cylinder setting forth some of his latest ideas of electrical interest. Mr. Edison complied in his own way. The message was as follows:

"MY DEAR MARKS:—You ask me to send you a phonographic cylinder for your lecture this evening and to say a few words to the audience. I do not think the audience would take any interest in dry scientific subjects, but perhaps they might be interested in a little story that a man sent me on a phonographic cylinder the other day from San Francisco. In the year 1873, a man from Massachusetts came to California with a chronic liver complaint. He searched all over the coast for a mineral spring, to cure the disease, and finally found down in the San Joaquin valley a spring the waters of which almost instantly cured him. He thereupon started a sanitarium, and people all over the world came and were quickly cured. Last year this man died, and so powerful had been the action of the waters that they had to take his liver out and kill it with a club.

"Yours truly, EDISON."

ORIGINAL ARTICLES.

SOME OBSERVATIONS ON THE RADICAL CURE OF HERNIA.[1]

By J. B. ROLATER, M. D., of Oklahoma City, O. T.

THE question of the justifiability of undertaking the radical cure of hernia when life is not threatened will be considered in the following question:

What are the indications by which the surgeon is to be guided as derived from the mortality of the operation and what prognosis as regards ultimate cure? As has been shown from past few years in the technique of different operators and their results, we are now rapidly passing to the time when the operation for radical cure is not only one of duty which we owe to our patient, but that of demand.

The greater our experience the more convincing the proof, that the operation in proper hands is practically void of risks to life. I know of one surgeon in my limited experience, who has done fifty-three operations, without a single death, or recording a single failure, though at time of knowledge cases had only been watched for a short while, and I doubt not that ere this a number have returned.

When the observation is extended still further, including those operated upon by surgeons who neither exercised care in the selection of their cases nor pursued a rigid aseptic regimen in their technique, the mortality is found to be by statistics only one-fourth of one per cent., then the temptation becomes very great to offer the benefit of an operation for radical cure to all who fall under our care, makes no difference if we should feel that not altogether an honest report is guiding our steps.

It seems to me, therefore, that a hernia which cannot be retained easily, painlessly, and with certainty, and one which increases in size rapidly, should be subjected to the operation of radical cure. The operation of herniotomy for necessity, I mean by this strangulation, should always include an attempt at cure. The slight additional time occupied and traumatism inflicted can have no weight as compared with the incalculable benefit to be derived from the radical cure, should such be attained. Equally important with the mortality of the operation is that of prognosis as regards ultimate cure.

While comparatively positive statements can be made as regards mortality attending the attempt at radical cure, the case is quite different when permanency of cure is considered. Many things might here be considered:

[1] Read before the Indian Territory Medical Society.

First.—The age of the patient.

Second.—The age of the hernia.

Third.—The amount of pressure to which the parts have been subjected and the consequent thinning of abdominal parietes.

Fourth.—The presence of a large opening.

Fifth.—The contents of sac and its previous complete reducibility.

Sixth.—The after-treatment of the case and the after-behavior of the patient.

Widely varying conditions exist according to whether the hernia is old or recent, and the amount of truss pressure to which the parts have been subjected. This latter bears an important part; as the intra-abdominal viscera and counter pressure of truss by their direct opposing force cause an attenuation of the hernial coverings. They almost of a certainty lead to the formation of a large opening, by thrusting forward that portion of the transversalis fascia, which forms the floor of the inguinal canal.

Should there exist large masses of omental fat, which have become adherent within sac and the extra-peritoneal tissue adjacent to canal and ring, lose their elasticity, then, at any time of life and with any kind of an operation, the ultimate prognosis must bear a question of doubt.

The object in all operations for radical cure is in some manner to dispose of sac and deal with cord in such way that it may reach the scrotum in an indirect course, and thereby not invite a return of the previous existing condition. In addition to this, that ever-present weak point in the abdominal wall, the internal abdominal ring, stands as a menace to the patient and an inviting factor to the recurrence of the hernia, which should, if possible, be obliterated.

I might here allude to the late and ingenius methods of Dr. Geo. R. Fowler of Brooklyn, of the intra-peritoneal transplantation of the spermatic cord, and typical obliteration of the internal ring and inguinal canal.

This is presented with the view of demonstrating that the obliteration of the internal ring and the inguinal canal is possible without resorting to castration, the most efficient of the formerly practiced methods of radical cure of inguinal hernia. Method is as follows:

First.—"A curved skin incision which furnishes easy access to all the parts involved in inguinal hernia.

Second.—Splitting the anterior wall of the inguinal canal from the external to the internal ring.

Third.—Isolation of the cord and sac together from the surrounding parts, after which these are separated from each other and cleared well up to the internal ring.

Fourth.—Double ligature of the deep epigastric artery, with sufficient space between the ligatures to permit of incision.

Fifth.—Cutting away of the neck of the sac and incision of the posterior wall of the inguinal canal and Hesselbach's triangle.

Sixth.—The cord is transplaced into the peritoneal cavity from the site of the internal ring to a point below the level of the pubic bone.

Seventh.—Broad approximation and suturing of the peritoneum and transversalis fascia in front of the cord for the space mentioned.

Eighth.—Obliteration of the internal ring and inguinal canal by ac-

curate suturing, and strengthening of Hesselbach's triangle, and the new point of emergence of the cord by outward displacement of the pubic attachment of the corresponding rectus muscle."

THE SERPIGINOUS SYPHILIDE.

By A. H. OHMANN-DUMESNIL, St. Louis.

THERE is no doubt whatever that every one who has devoted any serious attention to the subject of syphilology cannot have failed to observe not only the great variety of syphilides which occur, but also the further circumstance that the character of these varies as much from a pathologic as from a morphologic point of view. Furthermore, in a certain class of cases there is a greater tendency to the destruction of tissue; and this is at no time more apparent than at that period which seems to be the transition stage between the secondary and so-called tertiary, or that period when the deeper tissues begin to be involved and a connective tissue hyperplasia to take place. This latter process necessarily causes pressure, and this pressure naturally leads to a diminution of nutrition by compression of the vessels, and, as an inevitable sequence, destructive changes must occur in the tissues on the one hand, and fibrous deposits on the other. For these and many other reasons the late secondary lesions, as they are called, are fraught with much interest to the student of syphilography.

Not the least interesting among these is the serpiginous syphilide, which is observed after syphilis has declared itself and existed for some time. This is evidenced by the amount of surface attacked, as well as by some other characteristics to which attention will be called later. The process itself is quite peculiar in character; its evolution is such that it can be recognized directly it is seen, and it will be invariably found that it is essentially due to neglect in treatment, whether culpable or not. It is not always the fault of the patient, but often the lack of judgment or of knowledge on the part of the physician, which is the cause of this deplorable condition. Either the patient cannot or will not pursue treatment, under the false impression that the trouble will get well anyhow; or the physician imagines that because his patient's skin has been cleared he is cured, and under this false impression dismisses him with the assurance that he is well and need fear no danger from a relapse or the development of new symptoms. The result of either mistake is apt to prove very disastrous to the patient in the way of the appearance of some more or less destructive syphilides, the serpiginous being a rather frequent one. On the other hand, the trouble will be seen in individuals who have not only not been

treated for a sufficient length of time, but who have been given doses of medicine which are entirely inadequate to combat the condition at its inception. This in itself might almost be sufficient, but a great trouble in connection with inadequate treatment at the beginning is the one that the same inadequate medication is pursued for some time, and at last the patient is dismissed without ever having had his condition properly treated. The plan of continuous medication is most certainly an excellent one, but it must be persisted in to obtain any adequate or satisfactory result. A very good example of this is the spasmodic method, which consists in giving frictions and baths. Whilst acting very efficiently during its use, it is found to lead to the occurrence of serious relapses a short time after its discontinuance. The same thing is to be said of other rapid methods, such as the injection of soluble or of insoluble mercurial compounds. It is an impossibility to continue any of these very long, and a period of enforced rest is absolutely necessary; but medication must be resumed if any hope of ultimate recovery is to be entertained.

There is still another class of individuals in whom the serpiginous syphilide will manifest itself, and perhaps in its worst form. It comprises those whose general system has become debilitated from any cause. The only word which will express these causes is excess. Excess of exercise, whether it be from work or athletic exercises, overtraining in amateur or professional athletes, constitutes one variety of exceess. Then we have the habit of overindulgence in drink, which acts rapidly, and sexual debauches, which are the ones most apt to lead to bad results, which will remain permanent and persist throughout the remainder of the individual's life. The lack of nutrition is also a potent factor. This does not imply an insufficiency of food alone, but very often the lack of the proper kind of nourishment; and if there is anything which a syphilitic needs more than anything else, it is good food in proper quantity. It is as impossible to fatten a horse upon shavings as it is to get a syphilitic well upon improper and insufficient food. This is a point which is too often observed more in the breach than in the performance. Another absolute necessity, which must not be forgotten, is obtaining complete rest, both mental and physical.

Cases in which the serpiginous syphilide is observed very often show a rapidity of evolution in the lesions which may possibly account for the fact that they become so large. This may also serve to explain the steady progress in their spread which is observed. It may be stated that, as a general rule, it is men who are so affected. Women are very seldom the subjects of this particular form of syphilitic manifestation. The general rule holds good here, as in the case of other lesions, that women are never as seriously affected by the lesions of syphilis as men are; and it is equally true that when they are affected, in no matter what form, they yield much more readily to the effects of proper medication. Moreover, they are much more careful in following directions, and are not nearly as prone to indulge in excesses of any kind. It is very seldom that a woman is seen to be affected by the serpiginous syphilide, and, even then, comparatively mild medication causes its rapid disappearance. Those whom I have had occasion to see who were afflicted by this form were, without exception, prostitutes and hospital cases. This can be very easily understood when the

mode of life of this class is taken into consideration, more especially their excesses in *Baccho et venere*.

The serpiginous syphilide is, so to speak, a composite eruption. It does not manifest itself at once in the form in which it is subsequently seen. It is rather deceptive at its inception, as the lesions which appear at the beginning are pustules. These are distributed in a rather peculiar manner, and this very distribution when seen should arouse suspicions. There is a certain central grouping with discrete pustules at the periphery, looking very much like satellites. After a certain time the central pustules coalesce and a superficial ulceration takes place. The various forms of evolution which subsequently take place can best be understood by describing some different forms which comprise those most commonly observed. Thus, in the case shown in Figure 1, the outer ring of pustules broke down rather rapidly, and, at the same time, desiccation set in at a pretty rapid

FIG. 1. Serpiginous Syphilide. Single Formed Lesions.

rate. As will be seen upon inspection, the crusts have a sharply-defined border, their elevation above the surface being quite well marked. It may be noted that the central portion of each lesion has cleared and cicatrization has begun to declare itself. Here and there some granulations are apparent, but altogether the syphilides plainly show the effects of the treatment which has been given. It is also for this reason that the number is limited. Had there not been treatment of an efficacious nature, a greater number of the serpiginous lesions would have been present. If the illustration be closely examined small pustules may be discovered here and there, and these would have formed the foci whereby a further spread would have occurred. This is easily accomplished, as new lesions develop and then coalesce with the older ones, and thus lead to an enlargement in surface. The patient who is pictured had a number of discrete pustules about the chest, on the upper part of the back, especially over the scapulæ, and notably a large one over the right ramus of the jaw, near the angle. The sides of his nose were also affected in a similar manner.

Under the treatment, however, they disappeared, and his general condition improved to such a degree that he became quite cheerful in spirit, active in his movements, and he perceptibly gained in flesh. As can readily be seen in this case, the lesions were formed and well defined in nature. They had ceased to grow and were on the road to complete obliteration, except in so far as the scars were concerned.

Another case well on the way to recovery but still quite marked is that shown in Figure 2. Here it will be noted, in the first place, that the number of lesions is greater than in the one just detailed; and, furthermore, the crusts which are still present are much thicker and more prominent, albeit

FIG. 2. Serpiginous Syphilide. Lesions About to Coalesce.

but small in number. If the two most prominent lesions be studied it will be seen, in the first place, that each one is made up of several smaller ones which have coalesced; and it is furthermore evident that they have coalesced to a certain extent. This picture is certainly illustrative of the mode pursued by the process and shows very plainly the superficial character of the ulceration which takes place. A smaller lesion encroaching somewhat on the back also shows what was really taking place at the time the patient was observed. There was an effort being made to join and coalesce with the large one. A portion of a large lesion may be seen higher up, and this was on the back for the major part, and near it another of about

the same size. Upon the abdomen, right above the umbilicus, another large lesion existed, characterized by quite large crusts at its periphery. The right side of the trunk was not quite as extensively involved as the left. The case was further interesting from the fact that quite a lesion existed upon the upper and external portion of the left thigh; and it will

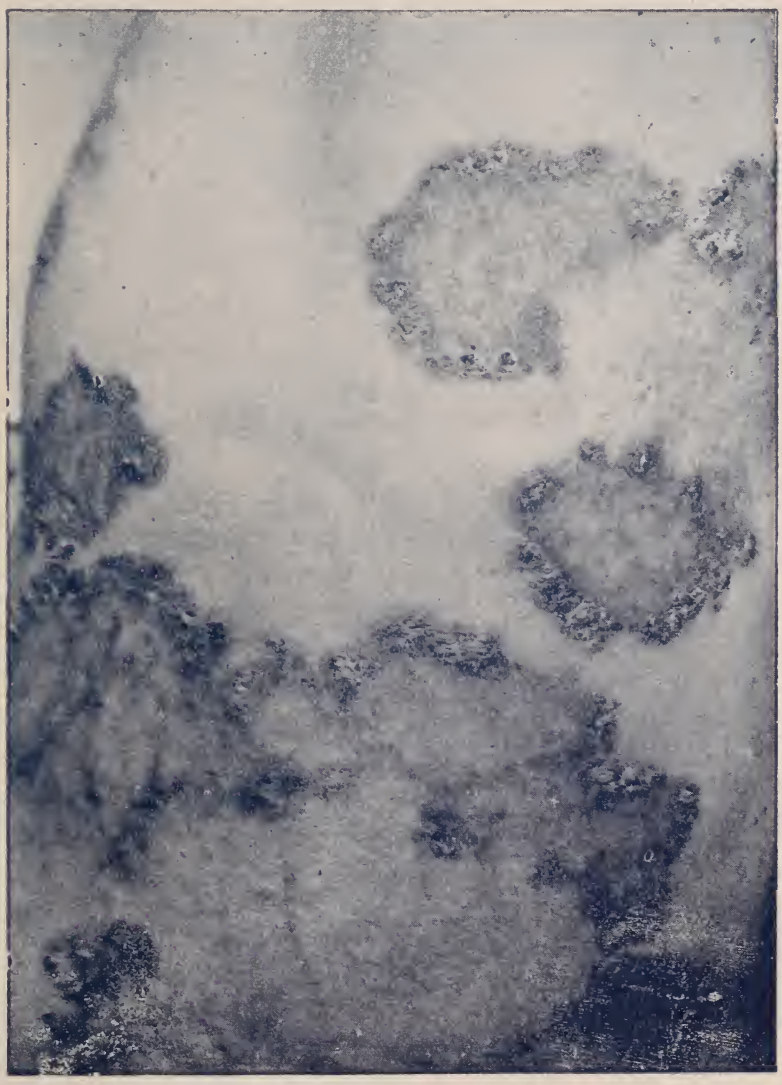

FIG. 3. Serpiginous Syphilide. Numerous Lesions Which Have Coalesced.

be seen that several pustules in it had already emptied themselves of their contents. It would also have become serpiginous in a short time. Some four inches below the left nipple a large pustule existed, and one still more marked right above it. From the size and character of these pustules the general character of the trouble could be easily surmised. Some other

pustules were distributed about the arms, buttocks, thighs, and other portions of the skin. The case was a very demonstrative one of the lesion under consideration, and the appearance presented could be considered a typical one.

Whilst the two cases just described are such as are usually met with in syphilitic practice, there are some which are occasionally seen that are much more extensive in character so far as the extent of surface involved is concerned. Such a one is shown in Figure 3. At the upper portion are shown two well-marked patches, the one to the left having lost that part of its circle of crusts which is nearest to the other. The other has not yet parted with all, but the close proximity of both to one another very clearly show that there exists a tendency to coalesce. Immediately below these is a typical lesion, showing all the crusts and a center which has cleared. Between it and the lesions above may be seen a thin scar, somewhat cribriform, the site of a former lesion, and indicative of the fact that the entire process had existed for some considerable time. Directly below, at the bottom of the picture, is further evidence of this fact. The surface exposed, which represents the left side of the thorax, is almost completely covered by the serpiginous syphilide. Here we see well-marked crusts at the edges, and here and there the remains of other or merely their bare outlines; but a mere glance will conclusively show that the whole vast patch is simply the result of the coalescing of a number of small ones. Throughout that portion which has been cleared may be seen the indications pointing to the formation of elevated portions in the scar which was to follow. The patient, a portion of whose trouble is here depicted, was in a most deplorable condition when first seen, but improved rapidly under energetic treatment. The skin all became clear and no traces remained of the syphilide beyond very thin scars, somewhat corded here and there. The abdomen, chest, back, and a portion of the thighs were involved, and when first seen the case appeared to be a hopeless one.

It may, perhaps, be well to state that the serpiginous syphilide has a tendency to spread peripherally, and, as it progresses, it clears up at the center, and the edge is pretty sharply marked by crusts which are somewhat adherent and thick. The lesions, as they are developing, may suddenly take a new direction of growth, so that a sort of serpentine shape is assumed, thus giving the name which has been applied to the process. In other cases, a number of round or ovalish lesions situated in the vicinity of one another may coalesce, forming a large lesion, with crusts scattered over its surface which serve to mark the outlines of the original patches. The entire lesion has a rather pinkish color, of such a peculiar hue that no difficulty is experienced in making a diagnosis. The entire trouble is a chronic one, and unattended by any pain. If left undisturbed it will continue for several years, attacking fresh portions of the integument until an enormous amount of surface has been involved. There is, also, a deep form in which the lesion begins as an ulcer, and it differs from the superficial form principally in the fact that it terminates in a thick, corded scar. The lesions are much more destructive in character, the crusts thicker, and the general process characteristic of a generally depraved condition of the tissues. The individual subject to this form of the trouble is in a more

or less marked cachectic condition. It is always a sign of a severe involvement, and indicative of the necessity of adopting active measures.

In the treatment of all cases of the serpiginous syphilide tonic measures are absolutely essential. A course of mercurial treatment is always best to begin with; and, if the case be at all severe, mercurial inunctions will be found to serve the best purpose. In cases in which the involvement is not so extensive, something like the following may be given:

℞ Hydrarg. bichlorid ..... gr. vj
Ammoniæ muriat ..... gr. xij
Syr. aurant. cort
Essence pepsini ..... aa ℥ iss
Aquæ destillat ..... ℥ iij
M. Sig.—Teaspoonful in claret after each meal.

In a very short time, more especially if the eruption is a rather late one in point of time—the third to the fifth year—recourse must be had to the iodides, as mercurial treatment alone is not sufficient. If the patient is cachectic, the following will be found a good combination:

℞ Natri iodidi ..... ℥ iv
Syr. ferri iodidi
Aquæ destillat ..... aa ℥ iv
M. Sig.—Half tablespoonful in a glass of milk after each meal.

Care, however, must be taken in medication, as efficient doses frequently produce temporary disturbances, necessitating the suspension of all remedies for limited periods of time.

So far as external applications are concerned, the first thing to do in order to obtain their action is to remove all crusts by softening with a moist dressing of a bichloride solution, 1 in 1000. Next, apply a mercurial ointment of a soothing nature. Should the process appear suppurative, peroxide of hydrogen should be applied liberally, as it will act in a very desirable manner and limit the suppuration. Should an ulcerative tendency manifest itself, it may be limited by applying pure carbolic acid; or, if it be preferred, lightly penciling a solution (1 to 8) of acid nitrate of mercury over the affected surface. After the use of any of these, a mild mercurial ointment will be found to act rapidly and efficiently.

Put a fool on a cycle and he will ride to destruction.—*After Shakespeare.*

A fool, a fool, I met a fool out on the road;
He a cycle strode, and in frenzied swiftness whirled;
A hill was reached—up his feet! down he rode—
A jolt—then this fool on head was sudden hurled.

As I do live by food, I met this poor silly fool,
Who, unconscious, laid him down, and unconscious basked him in the sun.
—OUTTEN.

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By Dr. Warren B. Outten, of Saint Louis.

CHAPTER VII.

[CONTINUED FROM THE SEPTEMBER ISSUE.]

Theodorus.—Right well hast thou done, Theo Celsus! For thou hast shown—aye, strongly, too,—this soul's strongest disharmony. This man is but morbidly peculiar, inheritedly singular, naturally eccentric; for his cause of action comes but from ancestral vagary. His lies, his whims, his habits, are as natural to him as his sight. His brain doth do but its fateful bidding. Such men are single and incidental products of life. They are but the helter-skelter, harum-scarumed "cranks" of this world. They are oft wrucking but brains-inherited, harmless, mental jokes, and at times wracking tragedies; and in honesty, show their mental stress in external habits.

Here, one gets himself up in dress so strange, so conspicuous as to compel observation and comment. Here, another dresses his hair in monstrous vagary, or walks in peculiarity's gait. Another writes with wonder's ink. Again, one speaks odd phrases, adorning his utterances with gesticulations o'er which freakish action holds her sway. Nay, here is one who wells in grimaces, quaint and regular, which o'er his face flits the playful folly of the soul. These men are but called the eccentric or the original.

Again, originality leads these men in torture's useless freak. This one surrounds himself with birds, while yet another makes a collection of insignificant objects, or becomes absorbed in puerile or nonsensical investigation. Here is one with the prodigality of waste, and there another ruled by sordid avarice; for many misers are but maniacs, and belong to the order of eccentrics. Again, here one lives in tumultuous religious excitement; there, another mouths in frenzy his political beliefs; and, aye, forsooth, the mouthful frenzy of some such beings do become but an argument of strength, which impels, oft-times, more than fools. Again, they become but causeless liars—fiends of falsehood and truth's slayers. Some o'erflow with the spirit of intrigue, or become duplicity's own; while others oft are ruled by the blindest passion for gambling or drink. Others, again, become misanthropes or hypochondriacs. The world knows them as eccentric persons, "cranks," and maniacs. They live with the world, are not found in asylums; and yet life, to them, is one continuous, one-sided need; for their addiction tends only to weakened phase of thought, and their life to an eternal war, based on an inherited fallacy. These mentally-sick men have hope only in death; for they are at unceasing cross-purposes with success, sanity, and common sense.

Para Blar.—Nay, thus have I pondered, and thus must I say: The will, to me, doth seem lord-ascendant in man's mind. Aye, the will doth carry a mind's life, by weal or woe. The ill-balanced, the eccentric, the strangely original, are but "cranks" of varying mental scope; for a

"crank's" mind doth bide in the indefinite region between madness and common sense. The "crank's" mind may partake of order, only to end in chaos. His is a sort of uncertain, amiable madness, wherein intention doth change to chance, and chance to dire hap-hazard. He may be a laughable foible, and, in the next instant, tragedy's own. Aye, the "crank's" mind hath not balance; it becomes top-heavy in failure. Aye, 'tis sad, yet true, that although his soul wells, oft, in a state of excited feeling, yet 'tis not from good nature's own response, but from the impotence of a weakened soul. Nay, thou canst read in action this mind's sad enfeeblement, which, in divers ways, is thwartfully shown; for flashing, blind impulse but makes reflection void, and robs the mind of that weal-working power, when it would will to act, act to choose, and act to form and execute a purpose. This, indeed, is a soul's sad plight when, in action striving, it hath not power, is not capable of choice of purpose, or the true act of volition. Woe, indeed, to the mind robbed of its best essenced action! Yea, 'tis a soul's, a mind's piteous impotence. Aye, by my troth, the will is master; and that poor mind of tottering will is man's, if not soul's misery.

TES AURE.—Misery only bides where feeling bides, and he bears misery best who hath not sense to feel it. Thus it is with thy "crank;" for he but seems to think that he is the unknown, peerless man of excellence; and from his "crankiness" doth pain and comfort flow. Yea, thy "crank" is, like error, akin to chance; and it would seem chance is but a "crank's" action.

HEINE LANIUS.—Nay, then, it doth seem to me that a "crank" is a muddle, a blunder, a vagary. He talks with grimace; he speaks with odd gesticulation; wears strange dress and hair; walks in affectation, and doth write in conceit—morbidly peculiar and unbalanced! A "crank" is allowed constant blunder, which fatefully courts misfortune. And yet misfortune neither teaches him, nor doth it make him wise. Yea, he is himself the constant cause of his own misfortune. Yet hath not sense to correct it, e'en though he may in piteous wail lament it. Anon, he is never master of himself; wherefore, he can never be master of others. His lack of judgment and hollow conceit do but make him the poorest of fools; and the Bible well pictures him when it says: "There is more hope of a fool than of him that is wise in his own conceit." Everything without tempts his emotion, his deepest and intensest feeling, while everything within but thwarts effective purpose, whence springs irritation, and eventually despair.

THEODORUS.—Nay, I pray thee, pardon! A "crank" is not a senseless man. Aye, 'tis strange; yet, forsooth, 'tis but the truth that he is but a living contradiction. For he doth revel in a very wealth of seemingly intellectual being, only to live and produce nought but meager and scanty results. By my troth, he is much like a boaster: maybe, a talkative, brainy failure. And oft, too, his intellect is like a fairy spark: seen brilliantly at a distance; but gods! 'tis lusterless in effect when one is in close contact. Aye, 'tis doubly true that the world sees its "cranks" in brilliant exterior, and oft adjudges them its superior beings. But close association doth make this delusion vanish, for their defects tower into incapacity. Aye, there need be no wonder, for there is just cause for the same. These

beings may well in vivid imagination, invention and expression, flow with rare gifts of speech; yea, be cultivated in art and poetry, and their actions, notwithstanding, devoid of healthful purpose. Yea, again, it is true, 'tis an unknown line that separates genius from "crankism." Many a "crank," by timely fortune, hath welled into genius. Anon, a "crank," like all emotional people, creates and courts wonder; but his emotional sensibility is oft his destruction, as it doth lead to danger's impulse and sad result. Nay, thy "crank" is surely an uncertainty from the cradle to the grave. Aye, too, he is like failure: starts with specious purpose, but aborts results.

THEO CELSUS.—Yea, it seemeth to me that self-blindness is an inherent failing with most men, for our self-knoweldge taketh not the broadest scope, as 'tis plain, to any one who thinks, that we are deceived more oft by ourselves than all the world deceive us. Truly hath the thought of Houssaye strongly moved me when he said that "there are two persons in the world we never see as they are—one's self and one's other self." Nay, to me it hath been a strange and expanding wonder why this is so. Gods! lives there a man whom wonder hath not besieged at times to fathom, from whence came many of his casual and unusual thoughts? Yea, forsooth, from whence came some inductive knowledge, springing unbidden and forceful from his brain? Nay, by my faith, thou canst not disprove it, that there is nothing in life except as the brain shows and makes it, for life is a problem of growth, due to a brain's organization, development, and accidents. Man's brain is the acme of metamorphic accomplishment, possessing a scope of function only comprehensible to its creator; 'tis the beginning and end of all organic activity. Aye, verily, 'tis my honest and soul-felt thought, that no man is or ever will be made superior to his brain's organization. Nay, 'tis wondrous truth that the construction of a brain is the eternal and infallible stamp of its function—the mind. Aye, doubt it not, that no power has ever existed, or exists now, capable of putting in a brain what hath not pre-existed in it. Yea, cavil cannot touch nor argument phase the palpable fact that the brain is man's ruler, controller; aye, the God-given psychic, governor of all of life's functions; and function is naught else in man than his character, capacity; yea, his will, his natal power of growth, improvement, the inherent maker of his life's efficiency, and the inevitable moulder of his destiny. Yea, brain is measure of all function in health or disease. Thy degenerate is but a creature of defective organization, bringing into active force germ moulded and germ grown monomanias; thy degenerate's eccentricity, ill balance and originality are but the display of errant function. Thus far 'tis well; but, perchance, an exampled story of a living character would add interest and better carry comprehension in our study of cranks, who, living, bide in crankdom. Yea, full well I know that long drawn harangues may tickle the vanity of haranguer, whilst it brings pain and burden to the harangued. Yea, I cry thee, patience! for in deepest thought I strive for thy comfort; hence, will I bring hurry to my aid in the recital of this tale of a powered, strangely eccentric, ill-balanced and brilliant degenerate crank. I pray thee, sirs, let it suffice that I, as a boy, did grow up to within a certain period with the subject of this, my story. Yea, farther be it known that he, my degenerate hero, hath been my after-study since he reached manhood, and till now,

for so marked was his career that newsful gossip hath portrayed every phase of his lifeful course. Thus, then, without further parley or wordy worry, will I begin. Caius Niart was this degenerate's name, and as a child he was a wondrous being. In his earliest age language was the ever-ready and ever-acting motor of his responsive brain. Yea, 'twas unusual; yea, 'twas strange, that language with him did seem as a pedigreed thing; for it was said that oft unconscious and untaught, the dead languages were ne'er left at peace, for the Greek, Latin, aye, even the Hebrew, sprang spontaneous and unbidden from his lips. Yea, not alone to me, but, forsooth, to many others, his language was a mysterious, unexplained thing, for this bubbling boy rippled with words seemingly from tongues of a far off distant part. His memory was claimed as being as receptive as space. Yea, like fresh bibulous paper, eagerly seized each stainy mote and held it in undying color. Yea, too, 'twas as light, for it held not obscurity, but tinged and colored all it touched. 'Twas said that thought and words came from Caius Niart which growth ne'er had time to make or mould; hence it was that the supernatural was deemed their source.

Rhyme, rhythm and flowers of speech played from his lips; mystic, drear and uncanny foible came uncalled, tune welled from his soul in thrilling torrents; high-sounding and wierd metaphor made him oraculous. Anon, 'twas natural when fact failed in the marvelous, gossipy imagination flowered the spaceful breach to make him all but a living impossibility. Here, I pray thee, let directness seize my theme for fear thy interest lags. Caius Niart, as I knew him, was a big headed, handsome child, endowed with almost perpetual motion. His face to me had a double aspect; one side seemed more than handsome, the other side almost ordinary, whilst a full front view begat in me a mixed or somewhat marred impression. His eyes were large, wide open, restless, dancingly brilliant, of a pale blue color; their protruding ball marred the harmony of an otherwise beautiful organ. His head was well rounded, in front a shapely, massive and gently receding forehead, somewhat bulging above the eyebrows; his nose of good length, and robust strength—it was a thing of vigor more than beauty; a chin of breadth and irregular contour. His ears were of good size, flabby, and flaringly planted, and marred the entire harmony of the head. His back head was lacking in graceful contour, presenting an abrupt, chopped-off appearance. His mouth was large, mobile, flexible, and withal graceful in outline; still, it was spoiled by the extent and flattened appearance of his lips. His voice was strong and penetrating, more definite than sweet. He had a frame more lithe than athletic; his motions were impulsive, quick and nervous; whilst haste seemed to mark every motion, yet his movements were never uncertain. Shapely, not ungraceful, but his arms were of unusual length, terminating in hands of unusual size. Yea, thou needst not wonder that in my childish eyes he was ever a marvelous being. Yea, could he not talk as no other child ever did? Aye, and had I not heard him, time and time again, hold his own against age and wisdom? In our play I soon found him not as other children, as he gave vent to thoughts far beyond my ken; and then again, in his boyish talks and pranks, he was more than fool. Truly, as a boy, Niart was filled with surprises, for fear at times would not ruffle his excited soul, for he would tempt things which filled me with dread and woe; then, again, would pale

and faint at things which ne'er gave me a passing thought. Yea, upon my honor, the down of a peach made him quiver as though horror-struck; aye, time and time again have I made him do my bidding by threatening him with a peach. Truly, he was in many ways not as other boys, for he ever was sensitive to a touch; thou couldst not drag, haul nor wrestle with him, as he ever seemed afraid of actual contact. Anon, in our boyish play, I and others did but too soon learn this dread to soon test and touch its depth; nay, thy finger suddenly thrust at him did but cause more dread than a dagger would. Heavens! Should one approach him in the rear unawares and but suddenly touch him near the small of the back, then would a hair-standing and blood-curdling yell spring from his lips, followed by anguish, fear, excitement, to be then succeeded by an almost fiendish combative action. Truly, from this and other things in our boyish talk we called him "goosey," for such actions to us then were foolish, inexplicable, and as silly as a goose. Hat he rarely wore, nothing tight about the neck; so bareheaded and an open shirted front were ever his. Nay, then, sirs, I pray thee patience, but here it seemeth to me that the grouping of these petty details doth better describe the aggregate of his character. Nay, then, there need not be wonder that with such a mind as Caius Niart's, he soon became a marked person. Verily, to me it was a pity, for only too soon was it seen that the pronounced attention and the constant appeals to his talents did but turn him from a healthy, romping boy to become a spoiled and fondled prodigy. Aye, too, it was evident that as he grew the vanity of his parents grew, for it was averred that such a mind as his must have more scopeful surroundings. Hence it was that he was taken to foreign lands, and every help that wealth could buy was lavished in the tutoring of this misjudged and misguided youth. Aye,'twas said that he early became an accomplished linguist, that foreign languages came almost at beck, and needed not drudgery to teach him. Yea, too, he became a prating, ill-balanced scholar, wherein breadth and not depth marked his education. For it was said by those who knew that it was sadly true that his nature was changed as he became, through cramming, a cramped and unnatural youth. He was ever restless, for his soul thrived in impatient change; continuity blessed him not, for spontaniety bubbled and moved him. Thus it was when he reached man's estate, and soon he left and went to a new and growing land. Yea, when once there, amidst this land's new and extravagant surroundings, he did in ease and readiness bud into a willful and extravagant character.

Yea, 'twas said that he became a creature of almost ceaseless activity, and, like havoc, laid waste the normal order of things. In this land his vanity daily grew, and ever found ready food in his erratic surroundings. Yea,'twas a marvelous thing, for it was said that his successes were so vast and brilliant as to make him blossom into a character of national repute. Yea, it was even said by some that empire for his energies was a cramped domain, for his boundless activity was destined to make him a world promoter as well as a world benefactor. Yea, had not his dashing and active thought brought new domains, and had he not dictated their settlement? Vast enterprises in numbers sprang from his brain matured, well balanced and fettered for effective use. Anon, doth not story tell how he, in almost grandeur, did travel o'er the length and breadth of that vast

land admired, courted and respected; yea, considered a wonderful creature? Wealth appeared to come as he willed. Aye, did not his favored language carry conviction? Yea, every thought; aye, almost every word was tinted in o'erweening vanity, for his language grew as his vanity did, and his vanity grew as rank as the country did, and seemingly was possessed with an errant power. Truly, was he not known from end to end of that vast land? Yea, did he not go from domain to domain, from realm to hamlet, and people flocked in crowded numbers to hear him talk? Nay, then, what cared they if Caius Niart's talk was the talk of an egoist, so long as he had met success. Yea, let Niart's extravagant language well into fancied grandeur; let it be as ill-balanced as a lunatic, voluble, strained and frantic as a madman's. Still, was he not a resplendant genius. Verily, strangeness doth seize the theme, for he did but receive an unceasing storm of adulation which gorged an o'er-stuffed vanity. Nay, was it not true that time and time again he had been almost smothered in frantic insane enthusiasm which still more inflated an already inborn egoism? Nay, then, why need one wonder that he posed as a God-sent and God-destined ruler of this realm. Aye, had he not often been superior to the varied play of ordinary circumstance? Yea, like Napoleon, he had made it as he willed. Yea, in the maddened grandeur of his egoism he essayed the championship of the abused and oppressed. In his audacity he defied law, after law of this land, and when outraged justice domiciled him in prison walls, he even then made the welkin ring by a word, picturing so acute, bitter and soul-wracking as to make more than one official squirm and pray for his release. Yea, he saw the confines of many prisons and labored on in mistaken zeal, for he fretted not in the intensity of his appeals. Aye, oft it was that accomplishment came not in intent's design. For such became his vanity that any position which thrust him into notice was welcomed as a boon. Yea, in very faith to me it was past comprehension; truly, staggeringly strange, that he for years held the public eye as an unknown quantity. Yea, 'tis said that even now some hold him as a peerless being. Perchance it is that coincidence in its varied play doth blind consider, but it was true that at times his power was superior to the normal force and rythm of his surrounding, or it may be that degenerate surroundings throb responsive to degenerate force. Nay, then, why need we wonder when time, that infallible and inevitable test of all things, did but show Caius Niart in clearest line, and in unerring force, the degenerate current and wayward force of this character. Yea, now, 'tis plain, for Caius Niart is known to all as a crank; yea, a brainy degenerate, an egomaniac, in whom wells eccentricity, originality and ill-balance. Sirs, I pray thee patience; 'tis not mine intent to tell, nor unduly enter into the story of his varied activity; nor will I, in long-drawn numbers, detail his whims, foibles or follies. Yea, thou hast heard, and 'tis thine to pluck the heart of its causes. Verily, it appears to me that few men in life seemingly gave larger promise or begot scantier fruit than Caius Niart. Yea, few men have ever said any more than he with the paucity of result, for his flow of language but washed away ideas of any element of value. Yea, sirs, there is profit in the essenced study of Caius Niart's character; verily, to me, 'tis plain that his power ne'er sprung from tranquility, but budded and flowered in acute change. Yea, was he not too scant in common-sense to comprehend or

fear result? 'twas thus that poor judgment thrust him into rash excess. 'Tis true that his rashness was by the unthinking mistaken for bravery, whilst it was naught else than the powered fault of ill-construction; for to me it seemeth that the courage of degeneracy is the insanity of ignorance; yea, the madness of comprehension. Aye, indeed, it seemeth to me that his very mental construction did in fatal surety court ruin. Verily, was he not a born egoist; his brilliancy brought exalted notice; this notice naturally and easily led to added and inordinate vanity. Yea, early surfeited with what he had least need of. Even as a child his earnest, intense, serious and resolute egoism was power; his language the tongue of degeneracy, which grew and waned stronger as he grew into manhood. Aye, his life doth show that he hath ever been a miser in self-denial, luxuriously rich in certain forms of self-knowledge, an autocrat, if not an anti-Christ, in self-love. Yea, was he not born rich in fancy, nourished by exaggerated improbabilities, as his delusion strained, marred and seared good sense and good judgment? Caius Niart's egoism was in the very beginning suicidal to his reason. At an early age he began to juggle with argument, and from childhood to age this juggling ever lead to fallacy. Yea, to me it seemeth plain that the rapidity of his wordy changes oft deluded the world as deeply as they did himself. Anon, to me it was certain that wisdom he never possessed, for never at any period did he learn, nor did he ever know, how to restrain his tongue. His exalted egoism so deluded his self as to make it believe that he was an impossible improbability, made to rearrange; yea, reconstruct this "old wabbling world." Verily, he was a born skeptic, as with neither judgment nor common-sense he ever failed to recognize fact. His morbid egoism was ever acting delusion; yea, an impenetrable veil which would not let him see, let alone judge rightly and well, truth or fact. Nay, then, if such he was, why, how could he be aught else than a natural free-thinker; not alone because of his deluding egoism would have lead to this, but additionally so because rapid changes so ruled his soul as to make it impossible for him to think either deeply, well or constant. Nay, did not these very elements make him a slave to credulity? Heavens! doth it not indicate that a degenerate's egoism is a potent deluding power, an evil which hath not limit, and o'ertowers in resplendant blundering any and all normal elements of mind? Caius Niart's brain made his egoism thrive in mad ruin, and made him the creature of perfection in his own eyes. Yea, thus did he argue to self; since perfection dwelt with self, how could he err, how could he sin; for whate'er he did was right, and right alone. Yea, was he not sinless, was he not the eternal and holy righteous? Yea, 'tis true that to normal man 'tis human to sin, yet truer still that it is only a degenerate who can sin, yet hath not power to see it. Nay, then, thus constructed, was he not a typical fanatic, since he had belief solely and alone in self, for his reason, judgment and will was governed by an ill-constructed organ? Nay, thou needst not doubt, for 'tis undying truth that an ill-formed organ doth not make well-formed function. Aye, in deepest certainty he was a miserable beggar in a mental way, since his mind was overbalanced by mental luxuries and bereft of mental necessities.

PARA BLAR.—Yea, it was well spoken, too, by Cicero: "Memory is the treasure and guardian of all things." Aye, memory rendered soul

and body possible; for every little cell that forms tissues, organs, and even perfect men, wells with memory. Yea, the brain is God's earth-created climax, and doth contain a mirrored world within its convoluted folds. Countless upon countless millions of crypts doth the brain's cell itself contain; and from these teeming million of particles life's pictures have been garnered, from countless ages past, and gathered into lifely action, a stored wonder of memory. And memory is but life, for within each cell doth bide image and its opposite. Memory renders mind possible, and knowledge is born of memory, for each cell of a brain is tremulously responsive to a touch, and every touch is but remembered. Yea, anon, every touch is the start of action; consciousness begets action, action begets ideas, and ideas are but a brain's waste, and cells' death. Yea, I do but think an idea is as birth; nothing but death begun, and unknown result. Nay, then, take this tremulously responsive brain, throbbing in action at every touch, teeming in emotion, then balked by will's impotence; aye, then, indeed, doth man carry within him his true element of destruction. Nay, to me, the wonder is not that the "crank" is as he is, but that he is not worse; for insanity were, indeed, a blessing compared to being an emotional "crank." Nay, 'tis so; a "crank" is e'en as sorrow, for he dwells only upon the confines of pleasure. Aye, 'tis more than true, that his life palls into blunder and woe. For he is but punished in direness, in wearing the yoke of his ancestor's doings. By the Lord Harry! I do but believe that heredity is an accumulated irritant; and could we but turn to all past ages, even old Adam might be spanked by his suffering progeny.

BLOM BOM.—In sober truth, God shrive the soul of that audacious mortal that would spank Achilles.

THEO CELSUS.—Nay, I pray thee, Bom, be solaced, for our turn is forestalled by many ages. Neither thou nor I would be called upon to spank either Achilles or Cæsar.

PARA BLAR.—"Past ages," saith thou? There is much in the theme. Aye, that's thought well sped; fortime doth make virtue in all things, and thy "crank" in past age was e'en as virtue's own. Aye, 'tis true as Gospel that the judgment of this age may, by another, be considered as "cranky" judgment. Thy emotional fool of to-day—thy fool of empty brilliancy, might have been e'en an honored pet in days gone by. Discordant souls are honored by discordant times. The savage of time, past and present, does but hold that the insane are God-inspired beings. Yea, the lunatic hath been the idol of ages past. A hundred years hence we shall be the "crank" of a past—atoms of time, and but opinion's freak.

THEODORUS.—How strangely do our ideas mould themselves. For they do but beget, at times, life's strangest wantonness. Genius, insanity, and epilepsy are brain's highest, intensest action; for all are but a matter of a brain's friction and active waste. Yea, 'tis true that irritation of a brain's convoluted crust doth beget them all. Yea, doubly true, that inherited mental irritants, and those acquired, are also but cause of wear and tear in a mind's disease. Yea, intense mental wear and tear makes the genius, the lunatic, the epileptic and even the "crank." Ancestry's gift, irritation, makes this very world teem in its greatest mental force. Like, here, doth unlike beget. Teeming blooded brains may be a soul' great-

ness, or a soul's infirmity. Thus it is our mind, in teeming wear and tear, evolves effort's greatest score, or killing inefficiency.

TES AURE.—Nay, 'tis but argue's right; wherefore, I say: Birth makes us mortal, breeding but tinsel's life, while heredity is life's supreme. Anticipation need not rack thee, for heredity, day by day, will surely tell thee. Our worst enemy, it seems, has been found in time and ancestry. Heredity doth have a thousand ways to thwart our purpose. The present, in our lives, is potent; the past far more so. Yea, I do marvel, if we could but see how much of man's present is made up of the past state, then, indeed, would the garniture accruing to man be found but little between the cradle and the grave. Aye, 'tis reason's own, that it hath taken thousands of years to make dull, stolid rock; how much more must it have taken to make the world-swelling seed of man! Aye, to me Paracelsus was right. Each little cell is a world in itself. Heredity hath but its laws, which know no appeal. Nay, he is but a dullard that strives to stay the inevitable. Aye, heredity is stern and impartial in her sway. Here, obedient to a command, a tiny babe succumbs; and, lo! and behold! there an imperious monarch dies. Nay, I know not how, nor from what, man was made, nor whence he came; but I do, indeed, know that he is a potent fact, and a rare, determining force in this world.

THEO CELSUS.—Aye, the past is much. But, by my troth, the present is more. Doubt it not, that the present is man's acmed life—the glowing, stinging part of life; for the past has gone and the future not yet come. The present is man's maker: It holds the past and tries to grasp the future; but, in strongest feeling, lives in the flowing present. Yea, anon, the present is life's climax; for in it man doth feel the past, present, and future. If a million years be but behind his present, he is yet their feeling product. Hence, the present means only life; for the past is what has been; the future what is yet to be. Life is truly consciousness, and consciousness but knowledge of sensation. Hence our sensation, truly, bides in a waking present; and memory bides and acts only in pure effect when in conscious action. The present but makes man the buffet and focus of time and occasion. Here endeth this dissert.

Yea, verily, this Cohort, it doth seem to me, did discover much in a very churlish breed. Still, this much I ween is true; that giddy, quaint, and odd actions go with the genius as well as with the fool, and in neither do such actions show strong good sense or great virtue. Anon, 'tis true, when the common run of men or the fool act giddy, dote, and ramble, the world then expressively calls them cranks, simpletons, fools, and asses. On the other hand, such actions in the genius doth make the fitful world view him as a cothurnated darling. Thus, in answer to a query of mine, Theo Celsus said: "Mark ye well, Mens; eccentricity, in all men, may often start from accident, when inconsistency and vanity builds a fabric of folly, pretense, and poor judgment. An eccentric man is oft but the show of an acquired egoism. While it may not be a disease, it is yet plainly evidence of a character, which has in its living purpose the individual, himself or I, and it always appears aggravated when incompetency attempts

to fill a larger sphere than nature intended it should fill. Aye, it is empty pretense, enacted by weak persons. Eccentricity is no more a sign of mental worth than delirium is. For it is a useless thing—aye, yes, a useless singularity, welling from a weak mind—a petty lunacy, created by vanity and circumstance. But a deeply eccentric man (I mean the degenerate) is a crazy man, with an inborn infirmity, showing itself as a positive and undoubted disharmony of the intellect, assailing the judgment, and thus constitutes a defective mental character. These are the helpless ego-maniacs of our every-day life. They are true morbid irregularities of character, showing isolated mental discords, orderless and desultory. Yea, too, they are the byplays of inherited mentality. They exist as well in the true maniac. These original and eccentric disharmonies of the mind are definite and absolute results. For it is plainly indicated in truthful search that their originality is caused by heredity and not due to any other cause, and very far, indeed, from indicating anything like mental strength. Aye, in truth, they are the seeming imitators of mental worth in the past, and creatures of real defect in the present."

Aye, all this is well; yet, withal, the thought doth rankle within me that this Cohort wasted o'er too much time in their dissert upon the pompous lieful wanton called "Echo Jem." He may be a degenerate and cannot help his action; yet withal, I strongly think that he is a hale, hearty drone, which powered crisis and pinch could make into a good citizen. Yea, verily, he is muscled like a horse, and only seemingly lives to waste all of his strength by coquetting with labor and shamming with truth. Truly, he hath a diminutive enlargement of the mind; and yet it is from this shallow cup that he draws his waters of life. It looks as though he had set his face like Adamant against truth; aye, he is as seemingly full of lies as a ram's head is of butts, for he doth draw upon truth in finer thread than a spider doth his web. Forsooth, he is a brilliant reflector of lie and not light. Aye, thus I say, he looks as though he had been smoothed off with pretense and polished with lie. Yea, to me he is a worse nuisance than a well-placed and uncatchable flea.

Oh, that a busy cudgel would as justice come,
And pound the scampish sap out of him.

Aye, by my soul, I quite agree with Vegge Go, who in somber seriousness did say: "Thy Echo Jem is but a trumped-up sham. Yea, too, he is the picaroon, the wrecker of his own life's worth. To me he doth seem a base-minded Jerry Sneak, who, by his actions, turns his dad's labor in begetting him into a thing of palsied value. Yea, he is a monstrous taradiddler—not a man, but a spent jim-crack. Echo Jem, forsooth! yea, he is but an addled boom."

For 1899.—During the coming year this magazine will give its readers more good medical literature for one dollar than any other possibly can. Some important improvements will be announced shortly.

ENDOMETRITIS AND ITS TREATMENT.

By L. L. RENSHAW, M. D., of Monona, Iowa.

SO MUCH has been said and written on the subject of endometritis as usually observed, that one is hardly excusable for presenting the subject.

The facts which I shall present are doubtless familiar to you all; and I must confess that in bringing the matter before you I am actuated more by a selfish motive of learning something by your discussion than by the hope of presenting anything new.

About sixty-six per cent. of the diseases peculiar to women that we are called upon to treat is endometritis in its different forms. The symptoms most frequently observed in cases of endometritis of the cervix or corpus uteri differ but little.

In the majority of cases there is more or less fetid discharge, distinctly purulent in character, and differing from the ordinary leucorrhœal discharge in being less viscid or tenacious.

The vagina and external genitals have various grades of pruritus, due to the acrid discharges; there is sacral pain, or rather ache, with a feeling of fullness or bearing down in the hypogastric region.

Bladder symptoms are often present, such as frequent and painful micturition. The proverbial constipation exists with the accompanying anorexia and digestive disturbance; often skin affections, especially acne; the chlorotic color in young girls, and the anæmic symptoms of headache, dizziness, palpitation and general malaise; menorrhagia being a very marked symptom in young girls and women at the menopause.

The examination may reveal an eroded cervix with patulous external os and elongated, but not always generally hypertrophied, in these cases where there is menorrhagia. Passing the sound into the cervical canal shows that it is more sensitive than in health; and the membrane bleeds more readily on touch than it should.

It will be seen that the physical signs, as well as the symptoms, are not by any means marked in cervical endometritis, yet they are sufficient for diagnostic purposes.

Whenever the constitutional disturbances and the local symptoms are severe, it may be at least suspected that the lining membrane of the cavity of the uterus is also involved.

There is no disease with which we have to contend where there are as many reflex symptoms manifested as in the different forms of endometritis as observed in the reflex disturbances of digestion, the circulation, and the nervous system.

The predisposing causes of endometritis are imperfections in the general organization, in the development and growth of the sexual organs.

Scrofulous and tubercular diatheses incline to the inflammation of the mucous membranes generally, and the membrane of the uterus is no exception.

When the uterus is undersized or malformed in a slight degree, so that menstruation is imperfectly performed, an inflammation of its mucous membrane is very likely to occur sooner or later. Sedentary habits and unsuitable clothing, overfatigue in standing or walking, or anything which interrupts the return circulation from the pelvis, predisposes to this affection. So, also, deranged nutrition, from insufficient nutriment or overtaxtion, mental or physical, which leads to impoverishment of blood, frequent child bearing, and prolonged lactation, also predisposes to this condition.

All these causes tend to produce derangement of innervation and circulation, and so favor the development of inflammation.

The exciting cause which plays the most important part in endometritis is imperfect involution after confinement or menstruation; the great majority of these cases take their origin from imperfection of the menstrual and parturient involution.

Other exciting causes which may be mentioned are injuries to the uterus from displacements, the use of ill-fitting pessaries, injuries during confinement, causing puerperal inflammations, abortion, especially if produced, efforts to prevent conception, and gonorrhœal virus, this specific cause of endometritis, no doubt, produces a form which differs from the non-specific forms.

So far as I am informed the same causes or conditions lead to both cervical and corporeal endometritis; so that, in the present state of our knowledge, I am not prepared to state any difference in the two affections, if any such exist.

I am inclined to think, however, that the cervical form is more frequent than the corporeal; and it may be inferred that one leads to the development of the other.

The constitutional treatment of inflammatory affections of the endometrium should be based upon the general management of local inflammations.

To correct any defect in the general health, to improve menstruation, and to calm any excitement of the nervous system, comprehends the whole subject. The sexual organs being dependent on the nutritive and nervous system for support, general therapeutic agents can only affect the one by the action of the other.

There are a few medicines that act especially on the sexual organs, but their effects are not always efficient in controlling inflammation. Constitutional remedies act upon the uterus only so far as they improve the general nutrition and innervation.

In the more acute stage of the disease of the cervical variety, as we usually find it, my plan of treatment is as follows: In the first place, free catharsis is obtained by the use of a saturated solution of magnesium sulphate in tablespoon doses every hour until free watery stools are obtained; in this way a very free depletion of the uterus is obtained—that is one of the most important steps in the management of these cases.

The following day I direct the use of a hot vaginal douche at temperature of 110° and to be continued for at least twenty minutes—and right

here is a point in the use of the vaginal douche in these cases that is important. The first effect of the hot water is to produce a congestion of the parts by a dilatation of the blood vessels; but by continuing the hot water as suggested, we get the depleting effect by contracting the blood vessels—and unless carried to this point, the hot douches do more harm than good in the treatment of endometritis.

Following the douche I commence the local treatment by cleansing the entire field of operation with a solution of carbolic acid of about two per cent., scrubbing the vagina carefully with pledgets of cotton held by forceps; then I make an application of equal parts of tr. iodine, carbolic acid and ichthyol to the cervix.

A wad of iodoform gauze about the size of a silver dollar is then carefully adjusted over the cervix, and another of borated wool is placed over it to retain it in place, and following day it is removed and the hot douche used.

This plan is repeated every third or fourth day until the approach of the period; and it will be found that the flow is increased in quantity and more nearly normal in character.

This plan of treatment applies more particularly to the acute or subacute cervical variety of the disease.

In cases where the disease has extended to the body of the uterus, or has become chronic, I am not in favor of spending any time and patience with this plan. The proper thing to do is thorough dilatation, if it does not already exist, thorough curettage and drainage.

This seems to me the most rational and scientific treatment, and the one that has been the most successful in my hands.

It is questionable whether pathological germs exist in all cases, but we adopt a method that presumes that they do exist in all cases, and the patient is prepared as follows: Three or four days before operating, I direct that the patient take a daily bath, thoroughly scrubbing with soap, brush and warm water, and use a free vaginal douche of a warm bichloride solution, 1 to 4000.

Just before the operation the patient is given the bath and douche as before, and the whole pelvic region scrubbed with a hot bichloride solution. The vagina is then cleansed with a saturated solution of boracic acid and soap; this is the most important step in the preparatory process, and should be done in a careful manner, and should be gone over repeatedly, and the vagina rendered thoroughly aseptic.

The instruments needed for performing curettage are a speculum, uterine dilators of two or three sizes, curettes, applicators, uterine forceps, and sponge holders; and these should be boiled for fifteen minutes in a three per cent. solution of washing soda, and the instrument pans should contain a five per cent. solution of carbolic acid.

The field of operation is covered with sterilized towels, and the operator and assistants prepared as for laparotomy. The patient is then anæsthetized and placed in the lithotomy position, and the thighs secured. Introduce the speculum, which is held by the assistant on the patient's right. The anterior lip of the cervix is seized by a double tenaculum and brought down as far as desired and given in charge of the same assistant.

In most cases it is necessary to have a small beaked dilator, like

Nott's or Atlee's, to begin the dilatation with, and finish with one of the larger beaked instruments, such as Goodell's.

The cervix should be cautiously dilated bilaterally, and the instrument turned from side to side until the cervix is dilated to nearly an inch. I consider this the most important step in the operation, and it should be done very carefully and plenty of time taken to effect it.

Perhaps many may take exceptions to the extreme dilatation; but I am convinced that it is the proper course to pursue; and if it is done carefully the traumatism will be very slight.

After the cervix is dilated the uterus should be irrigated with a warm solution of boracic acid or a normal salt solution.

The curetting is done as follows: Select as large a sharp curette as can be easily introduced; the instrument should be held delicately and lightly in the hand as you would a pencil, and introduced and withdrawn with the sharp edge in contact with the endometrium until the whole surface is gone over.

Following the curettage the uterus is again irrigated with the normal salt or boracic acid solution until all oozing is under control; then, either with a forceps or an intrauterine speculum, a strip of gauze is introduced loosely into the uterus with the end left projecting from the cervix.

A light dressing of antiseptic wool is applied to the vagina, completing the operation.

We sometimes meet with patients who will not submit to an operation, or cannot do so.

In such cases I have used a plan recommended by Dr. Glasgow, of St. Louis, in the *American Journal of Obstetrics* for February, in two cases, that seems to be far preferable to the old application with cotton.

In the language of the doctor, it is as follows: "At last I adopted the old-fashioned slippery elm tent. This I sterilized in alcohol containing 1 to 4000 bichloride solution. I trimmed these tents to any size I wanted, let them dry a few minutes, and dipped them in any application I desired; after a few minutes this soaked into the bark. I now broke it in many places, if I had not done so already; this was to make them more limber.

"After cleansing the cervix the tent was introduced and a pledget of cotton placed against the cervix in order to keep the tent in place.

"Both the tent and the cotton should be attached to a short string which hangs on the outside of the vulva, by which it may be withdrawn at any time.

"If we consider the mode of action of the elm tents, we will readily understand why we should get a better result than from the applicator.

"You all know that an elm tent will give off a slimy fluid when exposed to moisture. In this slimy mass is the application, which should cover every particle of the endometrium. In this way we get a thorough application, and keep it up for as long a time as we keep the tent in place; and this is not all: when we withdraw the tent, of course all of the contents of the uterus follow it out through the dilated cervical canal." A little further he says: "I have found that it is not best to use medicaments so strong as are generally used. Dilute the carbolized iodine to one-fourth, and the same with the carbolic acid."

When the curettment is properly done, the improvement in the local conditions of these cases is simply wonderful.

I take this position in the treatment of endometritis, in its different forms, with the full knowledge of the opposition to the use of the curette among a large number of the profession.

There is hardly an instrument in the armamentarium of the physician but what is dangerous in unskilled or careless hands. I cannot imagine how any harm can be done with the sharp curette in careful and judicious hands, and I believe it is the only scientific way of treating the class of cases to which I have alluded.

My experience in these cases and their treatment, as suggested, is limited to cases seen in private practice during the last three years; but I have succeeded in restoring them to health and with much better satisfaction than with the glycerine tampon and applications of tincture of iodine and carbolic acid.

HISTORICAL SKETCH.

THE IATRO-MECHANICAL SCHOOL.[1]

By JAMES MOORES BALL, M. D., of St. Louis.

BORELLI, 1608-1679.

The foundations of the Iatro-Mechanical School of Medicine were laid more by Borelli than any other individual. He made the first attempt to solve the problems of life and disease on mathematical principles.

Giovanni Alfonso Borelli was a teacher of mathematics. His chief work, *De Motu Animalium*, was printed after his death. The author attempts to explain that the motion in animals is due to mechanical processes. He showed that the bones are levers which are moved by the action of muscles; that the force used can be estimated mathematically; that the muscles in action are increased in bulk; that the activity of muscles is due to an explosion of a drop of nerve fluid with blood in the muscle; and referred to the similarity in the structure of muscle in man and the lower animals. Borelli was the first to state that the vascular system is a hydraulic apparatus; and he attempted to measure the force of the blood current and the strength of the heart. He attributed the return of blood to the heart, not to the vis a tergo, but to the aid of capillarity. He calculated that each heart-beat overcomes a resistance of 180,000 pounds! Respiration is a purely mechanical process. Inspiration he attributed to muscular action, expiration to relaxation; the lungs are passive, and after expiration contain air. Digestion, likewise, is a mechanical process.

The pathology of Borelli was unsatisfactory. Fever is not due to an acid, alkaline or sulphurous state of the fluids of the body, as the disciples of Chemiatria assert. Abnormal heat is not the primary symptom, as asserted by the Galenists, for this is the result of increased action of the heart and

[1] Continued from the September Issue.

more rapid circulation of the blood. Since fever does not depend upon anything deleterious in the blood, evacuant medicines are useless; but fever can be cured by the use of cinchona bark, which strengthens the tone of the solid parts. The doctrines of Borelli were elaborated by several eminent physicians, of whom Bellini was one of the most prominent.

LORENZO BELLINI, 1643-1704.

Bellini was a Florentine, and of such extraordinary talents that he was made a professor in Pisa at the age of nineteen. Having studied under Borelli, he was familiar with the views of the Iatro-mathematicists. During a period of thirty years he expounded their doctrines in the lecture

Medallion of Bellini.

room and published numerous works in defense of mathematical medicine. The most original part of his teaching was his theory of local stimulus, or counter-irritation. The mathematical doctors held the view that the chief causes of disease are alterations in the elasticity or tone of the solids, or in the density of the fluids, whose flow is interfered with, causing stagnation or local congestion. Bleeding from an artery, Bellini asserts, increases the velocity of the circulation and relieves stagnation. The same effect, however, can be obtained by the cautery, blisters and stimulating lotions. These agents cause local contraction of fibers, causing the fluids to be expressed from one part to another and increase the flow of blood, thus washing away morbid matters.

Bellini will be remembered not so much for his medical theories as by reason of his anatomical knowledge (tubes of Bellini); but the tubular structure of the kidneys had already been pointed out by Eustachius in 1565. His *Exercitatio Anatomica de Structura et Usu Renum* appeared at Florence in 1662, and passed through many editions. He wrote upon the tongue, and located the sense of taste in the papillæ of this organ.

In England the chief representative of the mathematical school was Archibald Pitcairne, who was a friend of Bellini and tutor of Boerhaave. He was more exclusively mechanical than the Italians had been, and would not entertain the thought of acids and ferments. Borelli estimated the power of the flexors of the thumb at 3720 pounds, their weight being about 122 grains. Assuming the average weight of the stomach to be eight ounces, Pitcairne calculated that this organ develops a force equivalent to 117,000 pounds. To such ridiculous lengths did some of the English advocates of this school proceed. Others, however, like Dr. James Keil, of Northampton, and Dr. Edward Barry, were more conservative. The former estimated the force of the heart-beat at from five to nine ounces, and the latter held that the length of life could be calculated accurately on the basis that the heart is like a clock and is set to beat a certain number of times. If the rate of action is increased by excesses, the life of the individual is shortened proportionately.

The celebrated Dr. Richard Mead, physician to George II., explained the action of poisons on mechanical principles. Cheyne attributed fevers to glandular obstruction. Newton sought to explain physiology on a theory of round particles passing through cylindrical tubes—pyramidal ones—through pores of a triangular shape, and cubical through square openings. The ingenious ideas of Asclepiades, of Bithynia, were clothed in a new garb, and crude microscopic observations seemed conclusive evidence of their truth. In France, Bossier de Sauvages and Senac, Perault and Dodart, embraced mathematical medicine; in Italy this system was supreme. Domenico Guglielmini, of Bologna, Bazzicaluve, of Lucca, who correctly regarded the blood corpuscles as cells; Mazzino, of Brescia, who regarded the dura mater as the source of motion and sensation, and attributed the activity of medicines to the form of their component atoms; and Antonio Fracassini, of Vernona, were half Iatro-chemists and half Iatro-mathematists. Their writings furnish evidence that under the guidance of chemistry, physics and mathematics great minds were entangled in a maze of hypothesis. Regardless of their penchant for calculation, the followers of Borelli and Bellini gradually drifted away from speculation toward a rational empiricism. This tendency is particularly observable in the writings of Baglivi and Boerhaave.

Chief-Surgeon of the "Frisco."—Dr. George W. Cale, formerly professor of anatomy in the St. Louis College of Physicians and Surgeons, has been chosen chief-surgeon of the St. Louis and San Francisco Railway, vice Dr. F. J. Lutz. It is understood that a hospital will be built either at Springfield, or Monett, Mo.

FORMULAE.

Migraine.—The following formula emanates from A. Robin:

℞ Antipyrine.....
Potassium bromide, of each..gr. viij
Cocaine hydrochlorate..... gr. 1-6
Caffeine .....gr. ⅓
Powdered paulinia sorbilis, gr. ivss
—*Le Progres Medical.*

Salicylate of Sodium in Toothache.—Dr. Frederick C. Coley believes salicylate of sodium to be the best remedy in toothache arising from catching cold. A dose of fifteen grains will usually relieve the pain promptly; and if repeated every four hours, the inflammation may entirely subside, leaving the carious tooth to be disposed of according to circumstances. Fifteen grains of sodium salicylate, with fifteen minims of tincture of belladonna, will often procure refreshing sleep instead of a night of agony.—*New York Medical Journal.*

Pruritus Ani.—*Le Progrès Médical* attributes the appended formula to Penzoldt:

℞ Sodium hyposulphite.....gr. ivss
Carbolic acid.....ʒ i¼
Glycerin.....ʒ v
Distilled water.....℥ xiv
M. Sig.—For external use. Apply frequently upon saturated compresses.

Sparteine.—Sparteine may be used hypodermically or externally as a local anæsthetic. Geley and Testevin have employed it in a one to twenty aqueous solution of the sulphate in various forms of neuralgia. Of this solution one cubic centimetre (= 15 minims = ¾ grain of sparteine) is thrown under the skin. In some cases it answers to apply the solution to the surface, covered with cotton and a bandage. —*La Médecine Moderne.*

Sea-Sickness.—Dr. A. Morel-Lavallée recommends the following mixture to control the vomiting of sea-sickness:

℞ Menthol.....gr. iss
Cocaine hydrochlorate.....gr. iij
Alcohol .....ʒ ij
Simple syrup.....ʒ i
M. Sig.—One teaspoonful every half hour.—*Practitioner* (*London*).

Lactophenin in Chorea Minor.—Use the following as sedative and antispasmodic for children of five to ten years:

℞ Lactophenin .....2¼ grains
Quinine hydrobromide, 2¼ grains
M. One such powder to be taken three times a day.

For children of ten to fifteen years use:

℞ Lactophenin .....12 grains
Quinine hydrobromide..12 grains
Cocoa butter.....150 grains
M. Make a suppository and use at bedtime.—*Pediatrics*, September, 1897.

Treatment of Sciatica.—(J. Murray Gibbs, M. D., *Australian Medical Gazette*, February 21, 1898.)—Rub the following liniment for five minutes on the painful part with the end of a rolled-up bandage,

taking care not to get any on the fingers:

℞ Crude carbolic acid, No. 5 ..... ʒ ij
Water to ..... ℥ ij
To be well shaken before applying.

Give the following mixture:

℞ Potass. iodidi ..... ʒ i
Sodii salicylatis ..... ʒ ij
Sp. chloroformi ..... ʒ ij
Aquam ad ..... ℥ viij
ʒ ss. Omn. 4 tis horis. Ex aqua.

Antiseptic Treatment of Typhoid Fever.—(R. H. Quill, *British Medical Journal.*)

℞ Acidi carbolici purissimi (Calvert's No. 1) ..... *m* xxxvj
Tr. chlorof. co ..... ʒ ij
Tr. cardamomi co ..... ʒ ij
Syr. aurant ..... ʒ i
Aq. chlorof. ad ..... ℥ xij
M. Ft. mist. Sig.—One ounce with an equal quantity of iced water to be taken every second or third hour immediately after food.

℞ Ol. eucalypti ..... ʒ j
Mucilag. acaciæ ..... ʒ j
Sp. ammon. arom ..... ʒ ss
Glycerini ..... ʒ ij
Sp. chlorof ..... ʒ ij
Aq. chlorof. ad ..... ℥ xij
M. Ft. mist. Sig.—One ounce every third or fourth hour.

Oil of Turpentine in the Treatment of Corneal Opacities.—Mr. G. A. Berry states that a good and not unduly stimulating effect may be got by the daily use of eye drops made according to this formula:

℞ Oil of turpentine ..... 1 part
Oil of almonds ..... 2 parts
M.
—*New York Medical Journal.*

In Acute Gonorrhea Dr. Duquain has used the following injection with good results (*Cent. f. d. ges. Therapie*, p. 443, 1898):

℞ Methyl salicylate, artificial, 1.0 mxv
Bism. subnit., or better salicylate ..... 10.0 ʒ ijss
Liquid vaseline ..... 100.0 ℥ iijss
Sig.—Shake well before each injection.

For acute intestinal disease in children from six to twelve years, marked by high temperature, the following may be used:

℞ Lactophenini ..... 15 grains
Bismuth. salicyl ..... 10 grains
Mix and divide into six (vi) powders.
Sig.—Give one powder in wafer or capsule every three hours.—*Archives of Pediatrics.*

An Ointment for Acute Articular Rheumatism.—The *Journal de médecine de Paris* publishes the following formula:

℞ Sodium salicylate ..... parts xxx
Iodoform ..... parts x
Ext. of hyoscyamus ..... parts v
Vaseline ..... parts 100
M. Fiat unguentum.—*N. Y. Med. Jour.*

Pulmonary Tuberculosis.

℞ Strychninæ sulph ..... gr. ss
Atropinæ sulph ..... gr. ¼
Cinchonidinæ sulph ..... ʒ ij
Ext. gentianæ ..... ℥ ss
M. Bene. Fiat massa et in pilulas No. 60, dividenda. Sig.—One pill night and morning.

Or,

℞ Ferri et quininæ citratis ..... ʒ j
Strychninæ sulph ..... gr. 1-6
Aq. puræ ..... ʒ j
Syr. acidi citrici., q. s. ad ..... ℥ iv
M. Fiat solutio. Sig.—ʒ j in wineglassful of water after meals.—*Egbert, Medical Record.*

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TRUST IN PROVIDENCE SANITATION.

Canning spoke a truth when he said: "Time and chance can do nothing for those who will do nothing for themselves. Providence, itself, can scarcely save a people who are not prepared to make a struggle for their safety." In matters of sanitation, it would seem that at least two conditions are necessary for a proper appreciation of prevention and sanitation: First, education and investigation; next, disease and death. The first condition, of course, is the one which bears constant fruit, and is an ever-acting, constant force; the second, while possessing elements of a positive and shocking nature, are inconstant in their action, since it is an established fact that the living and the well soon forget pain and trouble. There is no fact in life more apparent than that we all expect death at some time in absolute certainty; that death must, does, and will inevitably occur, is a fiat of nature accepted by all. Again, irrespective of the fact that the improvements in medicine have lessened pain, suffering, disease, and have saved innumerable lives, still the by-play of existencies equation is ever manifest, in the fact that all men must die, in spite of any and all improvements in medicine. It is true that the improvements and advance in knowledge in medicine have enabled the intelligent and pains-

taking man, all things being equal, to add to his existence upon earth, not only in years, but in many ways of ease and comfort; but, still, it does not prevent these same individuals from dying, as all must die. So, taking any and all improvements in medicine, they are rendered nugatory in the end. Perhaps it is this accepted and known ultimate result, along with ignorance, which renders the average man so indifferent and careless as regards his health, along with a profound indifference displayed as regards prevention of disease shown in sanitation and hygiene.

To the thoughtful man, particularly the sanitarian, there is no greater source of wonder than the fact that there exists in many communities an utter disregard for every measure pertaining to prevention and sanitation. Many of these communities will annually spend thousands upon thousands of dollars for nostrums, patent and otherwise, with resigned and accepted faith, and view the attempt to better their condition by sanitation with suspicion, and almost combative feeling. Year by year many States and communities, particularly in the southern portion of the United States, suffer from preventable and infectious disease, seemingly trusting in Providence to correct an errant and self-made cause. Just as quoted above: "Time and chance can do nothing for those who will do nothing for themselves," for an experience of many years has demonstrated that Providence best helps those who best help themselves, and not those who go against the laws of Providence.

To any intelligent and observing traveler it will be manifest that there are many portions of this country where there seems to exist an utter indifference and disregard for any and all of the laws of health. The intelligent professional man, the keen business man, the sturdy and intelligent farmer, are well up in their own especial line, but seemingly indifferent to the fact that in proportion to the healthiness of their communities is there thrift and prosperity; that the reverse condition simply is a constant loss to the single individual as well the entire community. Sanitation is ignored by the very communities which most need it. Medicines are used after the health is lost, while sanitation or preventive measures prevent sickness, pain and suffering, loss of time and loss of money. It is useless to argue that there is no source of knowledge more valuable to the healthy living man than that knowledge which enables man to know how to prevent the inroads of disease. Sanitation, when well applied in any disease-stricken community, is the greatest boon which can be bestowed; hence we cannot help wondering why every statesman, professional man, merchant, and other vocations in the South do not demand some national organization to apply studious sanitation to their respective regions. The suggestion made by the editor of the journal of the American Medical Association for the formation of a National Board of Health is pre-eminently worthy of consideration, and pre-eminently practical and beneficial, and would well become our great and growing country. There stands no finer object lession of the rare value and the potent power of sanitation than that given by General (still Doctor)Wood, in Santiago. In a space of not three months Doctor Wood, as governor of Santiago, by prompt, efficient methods, changed one of the most plague-infected spots ever known to man into a comparatively healthy place. If General Wood can, by wise and rigorous measures stamp out yellow fever in a place which, for years, was

its most favored spot, what then might not be accomplished in many of our southern States, if an intelligent National Board of Health had control? It certainly seems that no greater good can be accomplished than the establishment of a National Board of Health, and we believe that it is the duty of any intelligent person, any intelligent doctor, any intelligent professional man, to discuss and agitate this question. A National Board of Health full-powered and backed by the strong arm of the government, would ever be an active agent of good, and by its educational work would enable the masses to live as they had never lived before. Trust in Providence sanitation is a relic of ignorance and barbarism, and carries in its wake misery, suffering and death; it paralyzes all business, robs communities of their normal thrift, brings sorrow to almost every family, and needlessly causes the weak, needy and innocent to suffer. The formation of a National Board of Health, broad and educational in its function, is more needed than the extravagance displayed in many governmental institutions. It is in the line of progress, eminently practical and humane, and will add to the wealth of the country. Such a body is indeed needed, as here and there we are permitted to see the rare and wonderful effects of effective sanitation; hence no ill-proved theory dictates, but results potent and positive. O.

HYPNOTISM AN UNKNOWN QUANTITY.

The ease of comprehension in any question must mark its efficiency and breadth of application. Demonstrable fact unencumbered by masses of speculation are accepted by all common-sense men as being the only efficient products. When it becomes necessary in the explanation of any subject to add vague, indefinite terms, whose subtlety requires unusual nicety of explanation in order to comprehend, it then becomes almost a certainty that the subject is not understood.

This is the case with hypnotism; for we do not believe that even the best authorities now extant on this subject are competent to explain the characters and many elements existing in and dependent upon the application of hypnotism in medicine. The conception that the higher cerebral centers control the lower is, perhaps, a naturally suggested theory, but still it is a theory and remains unproved; and the assertion that there is a suspension of the higher inhibition, which enables hypnotism to be produced, is as equally as well a theory. The term "subliminal consciousness" is now used with frequency and due gravity—a sort of lazy, mazy and hazy condition of mind, which no one has shown when or how it is developed, nor the extent of its control. Hypnotism at best is but a by-play upon a mind's latency, rendered non-resistant by inherited conditions and forcible strained conditions. It can have no place nor effect upon strong normal brain, but must have some antecedent, nerve-exhausting condition at the back of it. Its therapeutic value is as doubtful as the explanations of its cause; it does not tower above our best therapeutic efforts, for no one has demonstrated thoroughly the full extent of its injury upon a subject where it has been practiced to any great extent. That its indiscriminate use is dangerous, no one can deny who has had any experience; that the relaxation of will-power upon the part of any person will in surety lead to pathological conditions, has never been doubted. All

authorities at all fair minded have asserted that the entire subject is delusive and mind-weakening to the parties engaged; that is, both hypnotizer and the subject; dangerous both to the intellect as a whole, the will particularly, and the character generally of the patient; dangerous to the physician, since gross delusion can easily come from designing patients, weakened credulity engendered. The worst deluded are the self-deluded. In fact, the application of hypnotism in medicine is now considered not only as a doubtful agent, but a dangerous one. In spite of all the recent attempted explanations and efforts to advance it, still it stands virtually in *statu quo* as a remedy under the ban of common-sense and well-grounded prejudice. O.

AN INSTANCE OF A DOCTOR'S DEVOTION.

There appears to be an abundance of romance in the Soudan. Any one who has read Slatin Pasha's book cannot fail to be filled with horror at the action of the Mahdi and his fanatic, cruel followers. But none of the stories emanating from there present any more romantic a story than that of Dr. Karl Neufeld, who for twelve long years was held as a prisoner by the Khalifa until liberated by the Sirdar, General Kitchener, after the overthrow of the Khalifa, at Omdurman. Doctor Neufeld had studied medicine at Leipsic University, practiced for a short time and then engaged in mercantile pursuits. The doctor came to the conclusion that he could establish a business in the Mahdic realms, and he got as far as Berber when he was arrested as a spy and sent to Khalifa Abdullah. He was condemned to death, but was reprieved and sent to prison and treated in the usual horrible manner. Finally, his knowledge was utilized in making gunpowder, and then became the court interpreter, decorator of the mausoleum of the Mahdi. Now comes the strange part. Many offers of aid were made by powerful persons to aid him in his escape, all of which were refused. An Abyssinian female slave had been presented to Doctor Neufeld by the Khalifa, and she had borne him two children. Such was his devotion to his slave-wife that in spite of all the aid in the shape of money and assistance to escape, he utterly refused to accept liberty without his wife. He preferred all the attendant elements of discomfort and slavish harassing condition with her than all the honor, wealth, or other things that a life of liberty outside offered him. He bore his position of contumely patiently. As long as he had the love and devotion of his wife liberty would be hateful to him; without her a slave's life was preferable, so long as he had this loving creature with him.

All honor to Doctor Neufeld for his honorable, manly, and noble course! He stands high up in the estimation of all sensible men as a man of duty, nobility, and honorable action. For his devotion the good God of man enabled him to obtain liberty for himself and the object of his devotion. For, when the Sirdar captured Omdurman, Doctor Neufeld was restored to liberty along with those he loved so well. Such actions as these relieve the hard, monotonous face of selfishness, and show the grand inherent nobility of soul so often described, but not so often seen. O.

HE HAD A CHANCE TO DEVELOP.

Amidst all of the vituperative clatter against the medical and other departments of the United States Army, redeeming elements are constantly

manifest. It seems senseless to blame the personnel of an organization when that organization is faulty in construction. The medical department has been so hedged in, guided and governed as to all but make it mechanical in action—the best elements ignored (we mean mental elements), few persons in its entire organization permitted to grow or develop in broad executive function. The incessant chain to higher functionary simply means that authority is vested, in reality, in a minor way in the very highest official of the government medical service. Opportunity is rare, and the efficient man needs but free patron, and that is the lucky chance. Had Dr. Leonard Wood been in the service of the medical department he would have remained buried in the depths of a perfunctory vocation. But kindly fortune smiled upon him in her most fervid manner. He became colonel of the now famous regiment, the Rough Riders, achieved an enviable reputation in the fierce fighting at La Quasina, and was at once promoted to a brigadier generalship for conspicuous bravery. Then he was appointed military governor of the city of Santiago at a time when chaotic confusion would have perturbed a less brave soul. Now, this general was educated as a doctor, and appreciated with all the keenness which education can bestow the absolute needs of his surroundings; every element favored him with completest authority and means at command made brilliant results rapidly manifest. In terse, an opportunity permitted him to grow, and his ability became a potent fact. His natural executive ability and habits of command engendered in him as soldier enabled him to bring law and order amidst a lawless horde; while his knowledge of the laws of sanitation and health made him a blessing to every man, woman and child in the disease-infected community of Santiago. For ages past Santiago was damned with the reputation of being the filthiest and unhealthiest city in the Antilles. All sea-faring men knew it to be a veritable hot-bed of yellow fever; and tradition tells of a sailor's dread of that place. It is said that when Doctor, now General Wood took charge of Santiago, no place on earth presented more profound and dire difficulties to combat. Its every street filled with the accumulation of aged infecting dirt; buried in every available place were the bodies of the slain and the diseased, reeking forth infection to an outer air; and pestilence stalked forth in ponderous, unchecked freedom. Fortunate indeed and God-directed was it for that sad inflicted place that General Wood had knowledge of its sanitary needs. 'Tis now a little more than two months since he took charge of this filth-reeking and pestilential domain; and this doctor, soldier, governor, has so improved its healthful elements as to make Santiago a comparatively healthy city. From official reports we learn of twenty-five per cent. fewer cases of illness than there was a few weeks ago, and that yellow fever has been practically stamped out. Indeed, it is often in our thoughts that even the most cultured and civilized have not imagined nor dreamed of the great and many blessings which can be showered upon humanity by true sanitation. We honor Doctor Wood the more, not General Wood the less, for the good he has done in saving lives by vigorous sanitary measures. Surely, greater happiness and greater blessings will be his since his medical knowledge has blessed the good, loving, needy and weak. He won florid glory on the field; he now wins the hallowed glory of effective humanity. O.

THE POSSIBILITIES OF LIQUID AIR.

It is a noted fact that the liquefaction of air is not a new thing, inasmuch as many years ago Faraday accomplished this very same thing. But the cost of the product was excessive and not commercially attainable. Heretofore the cost of the product amounted to $2,500 or more for a single quart. Mr. Charles E. Trepler, of New York, has devised an apparatus whereby this substance can now be made upon a purely commercial basis. From descriptions we learn that the principle of Mr. Trepler is as follows: Compressed air is made to flow continuously through a coil of pipe and back again after expansion over the outside of the coil. The expanded air extracts heat from that coming through the pipes, which, when it in turn expands and passes over the coil, refrigerates subsequent air to a lightly greater extent than it was itself refrigerated. This process goes on, the current becoming colder and colder, until within a quarter of an hour liquid air is flowing through the pipes and can be drawn off. The highest temperature at which air can be condensed to a liquid is 220 degrees below zero, Fahrenheit. It is stated that liquid air can be manipulated in open vessels as if it were water, and that it is capable of being transported hundreds of miles in a mere padded can but with a partial loss by evaporation. Many curious properties are detailed concerning liquid air. It is said that a steel wire held over it, with a match affixed, burns like tinder, owing to the richness of the fluid in oxygen. A dipper will by contact with it become for a time so brittle that it may be shattered with the hand, although the tensile strength of the metal is increased. A teakettle filled with it boils without fire, and still more freely if ice be added to it; and if held over a Bunsen burner will become coated with ice directly above the flame. It has been used in England by Professor Dewar as a refrigerant in the condensation of hydrogen. It can be used as the essential constituent of an explosive of marvelous force. And there is no doubt that as a receptacle for the storage of power for motor work, possibly owing to its lightness and compactness, it has greater capabilities than steam. Its possibilities in medicine, we believe, are destined to be great. It may be possible that this liquid air may take the place of many remedies used. Perhaps it may be a possibility in fighting germs, and loom up on the therapeutic horizon with greater possibilities than the phagocyte. We quote the following from the *New York Medical Journal*, which, perchance, is more facetious than true; but it indeed would be a resistant physique which could stand a liquid air cocktail, since its escharotic properties are unexcelled:

LIQUID AIR COCKTAILS.—We learn from the *Public Health Journal* for August that "liquid air presents surprising possibilities as a medicine. A Russian physician has already begun to experiment with it. He placed a dog in a room with the temperature lowered, as stated in *London Engineering*, to a hundred degrees below zero. After ten hours the dog was taken out alive, and with an enormous appetite. The physician tried the test on himself. After ten hours' confinement in an atmosphere of still, dry cold, his system was intensely stimulated. So much combustion had been required to keep warm that an intense appetite was created. The process was continued on the man and the dog, and both grew speedily fat and vigorous. It was like a visit to a bracing northern climate."

When will liquid air cocktails be available? O.

THE BATHS OF FINLAND.

Mrs. Alec Tweedie, in her book, "Through Finland in Carts," had a very profitable and thoroughly interesting study of the baths of Finland—a study in naturalness. She says: "No one can be many days in Finland without hearing murmurs of the bath house. A Finnish bath once taken by man or woman can never be forgotten. A real nature bath is one of the specialties of the country. Even in the old songs of the 'Kalevala' they speak of the 'cleansing and healing vapors of the heated bath room.' Poets have described the bath in verse, artists have drawn it on canvas, and singers have warbled forth its charms; nevertheless, it is not every traveler who has penetrated the stranger mystery." After noting that every house in the country, however humble, boasts of its "bashe," or bath house, called in Finnish, "Sauna," she continues entertaininlgy thus. She says: "Every Saturday, year in year, the stove connected with the bath is heated and the whole family have a bath—not singly; oh, dear, no! but altogether, men, women and children; farmer, wife, brothers, sisters, laborers, friends, and the dogs, too." * * * "So that once in each week the entire population of Finland is clean, although few of them know what daily ablutions, even of the most primitive kind, mean, while hot water is almost as difficult to procure in 'Suomi' as a great auk's egg in England." * * * She thus describes her experience in taking a bath: "Immediately before us was the 'bashe,' a wee wooden house, like a small Swiss 'chälet,' the outer room, where we undressed, containing a large oven. The inner boasted only one small window, through which the departing day did not shine very brilliantly, luckily, for our modesty. Its furniture was only a large-sized tin bath filled with cold water, opposite to which were seven very wide steps, like a staircase, the top step forming a kind of platform, where there was just enough room to sit without one's head touching the tarred ceiling above. The steps and the platform were covered with straw—Finnish fashion—for the great occasion." * * * "Oh, the heat! Many as know Turkish baths, but then we take them gradually, whereas in the 'bashe' one plunges into volcanic fires at once. Blinking in the dim light, we found that beside us was a brick-built stove, for which the fire, as we had noticed while disrobing, is in the outer chamber, and when the washing-woman threw a pail of water upon the surface of the great heated stones placed for the purpose inside the stove, the steam ascended in volumes and the temperature went up until we exclaimed in one of the few Swedish terms we knew: 'Mycket hett!' (very hot) at which agonized remark Saima laughed uproariously, and, nodding and smiling, fetched anothed pail of water from the cold bath and threw its contents on the brick furnace, in order that more steaming fumes might ascend. Almost stifled we flunked, and gasped, and groaned by turns; we repeated again, 'Mycket hett, allhot hett!' (too hot). 'Tack so mycket' (thank you), in tones of anguish." * * * "A moment later, through the steam, we saw her smiling face, with a pail of hot water in one hand and a lump of soft soap in the other, on which was a large bundle of white fiber, something like hemp. Dipping this in the pail, she soon made a lather with the soap, and taking up limb after limb, scrubbed us hard and long—scrubbed until our skin tingled, and in the damp and mysterious heat

we began to wonder how much of our bodies would emerge from the ordeal. This scrubbing was a long process, and if the Finns wash one another as industriously as Saima washed us, no one in Finland should ever be dirty; most of them must almost lose several skins a year. Pails of water were then thrown over us, over the straw, over everything, and we heard the soapy water gurgling away into the lake below." * * * "More water was thrown onto the steaming bricks, and Saima retired, returning immediately with a great bundle of birch leaves tied up with a string, such as we had often seen her on former occasions sweeping floors with. Dipping the branches of the birch into a pail of hot water, she proceeded to beat us all over, hard and long. It was an awful experience; we were beginning to feel the heat dreadfully by this time, and were confident the blood must be galloping through our veins." * * * "She fetched a pail of cold water, and pouring a good drop on our heads, which made us jump, she dipped her birch branches therein and switched them over us." * * * "We descended the slippery steps and jumped into that bath of cold water previously mentioned, clad only in burning hot towels, returning to the outer room to dress. We puffed and panted, and quite exhausted longed for a Turkish divan and quiet rest before robed in fur coats and thick undergarments, we trotted home to bed. Our bath was taken." * * * "We had washed according to nature's ideas and customs. Whether it was the heat or exhaustion, or the loss of one skin or many, we know not; but after a glass of 'mjod,' that most delicious and refreshing of Finnish drinks, we slept splendidly, and felt fit next morning for any amount of hard work—even for a journey to Russia through Finland, though we did not speak or understand the language of either country." O.

"YESTERDAYS IN THE PHILIPPINES."

J. E. Stevens, in his "Yesterdays in the Philippines," thus descants upon some of the diseases in the Philippines:

"I see by the papers that there are at least two cases of small-pox in Boston, that everybody is alarmed and hundreds are getting vaccinated. Curious state of affairs, isn't it? when every day out here you see small children running around in the streets, covered with evidences of this disease. Nobody thinks anything about small-pox in Manila and ceases to notice it if a Philippine mamma sits opposite you in the tram-car, holding in her lap a scantily-clothed child whose swarthy hide is illuminated with those unmistakable markings. Some weeks ago there were even four hundred deaths a week in Manila from this disease alone; and from the way in which the afflicted mix with the hale and hearty, you can only wonder that there are not four thousand. But small-pox flourishes best in the cool, dry days of our winter months, and is now being stamped out by the warmer weather. An effort is being made to have everybody vaccinated, and the steamers from Japan have brought down whole cargoes of lymph; but the natives do not see any reason why they should undergo this experiment, and would much prefer to have the small-pox than to be vaccinated; and this being the case, it is no wonder that almost seventy-five per cent. bear those uncomplimentary marks of the disease's attention." * * * "The families of the lightermen on the bay, crowded as they are into the hencoops over the stern of the bulky craft, are full of it." * * * "As a rule, however,

the members of the English-speaking colony get so used to this disease that they have no especial fear, in suddenly turning a sharp corner, of running into some native sufferer. In days gone, when cholera decimated Manila's numbers, when people died faster than they could be buried, when business was at a stand-still and the city one great death house, were the times that tried men's souls. But now that those big water-mains, which run along the ground, bring fresh water from far up into the hills, the natives have given up the deadly practice of drinking from the river, and, thanks to the good supply system, no longer give cholera free admittance. Beside small-pox, then, fever is about the greatest enemy—and certain types of the malarial variety seem so common that the sufferers from them often walk into the club, drop into a chair, and say: 'Got the fever again; means another lay-off.' If they can keep about, the old stagers never give up; but novices buy thermometers and cracked ice, and either go through a terrific siege, like my friend whose eight-weeks' struggle shrunk his head so that in convalescence his hat touched his ears, or escape with a week's initiation. Typhoid seems also common, and there is generally one member of the colony for whom the rest are anxious, stretched out in ice-baths and wishing he had never seen the Philippines. The old hands—who, by the way, seem to be regular sufferers from the fever—all say the only way to be safe is to drink plenty of wkiskey; but, so far as I have found, the less one takes the better off he is." O.

AIR.

Air: the fluid which we breathe and which surrounds the earth; the atmosphere. It is invisible, inodorous, insipid, transparent, compressible, elastic, and ponderable. Such was the definition which for years was accepted. Air as known was generally considered as consisting of four parts of oxygen and one of nitrogen. In 1894 Lord Ruyleigh and Professor Ramsey discovered an unknown chemical element, hitherto unknown, to which they gave the name of argon, which is said to comprise one per cent. of the earth's atmosphere. Not long after the discovery of argon Professor Ramsey extracted from a rare mineral called clèvete another element, helium, which already the spectroscope had revealed in the sun, but which prior to this time had never before been found upon our planet. It would appear that the spectroscope had early produced the belief that argon is not virtually a single element, but evidently comprises more than one primary gas. It had been noted that the two gases, argon and helium, seemingly resembled each other in the fact of their reluctance to form compounds. Now it has been left to Professor Ramsey and Mr. Travers, by distillation, to liquefy argon and to separate it into four constituents, one of which must be considered the true argon, and the three others are apparently new elements, to which the following names have been given: krypton, neon, and metargon. It would seem that the end is not yet; for other terrestrial elements seem likely to be forthcoming in the studious work of the chemist. Thus, for instance, an element called coronium, which, like helium, had been previously known to exist in the sun, has been lately discovered by Professor Nasini, of Padua, in volcanic gases. The vapor density of coronium is thought to be less than that of hydrogen, which hitherto has been the lightest gas found on earth. O.

WOUNDS OF THE MAUSER BULLET.

Much experiment had been made prior to the Hispano-American war regarding the wounds made by projectiles with very high velocity, and they were considered by some as destined to be more destructive to life than those of less velocity. The war appears to have plainly proved that the reverse has been the case. It seems somewhat astounding to think that the small-caliber Mauser bullet, which penetrates a yard of hard pine, goes clean through a man when it hits. From experience it is shown that at short range it generally goes through the man hit in a perfectly straight line, and at such a rate of speed that it almost sears the wound from the heat generated. Then, there is another additional and still greater virtue, or rather benefit, and that is the fact that the bullet makes its exit from the tissues of the body; hence, leaves no necessity for painful and dangerous probing of the wound, which, not infrequently, was a source of wound infection of the battlefield. Again, their rapid transit through does not take bits of clothing into the wound to leave them there as foreign bodies and sources of infection. These bullets make a clean tunnel through the wounded man from entrance to exit, thus securing a wound free from infection and giving good drainage. Hence, a great many of the wounded in the recent war required no operative treatment, and recovery was, in many instances, unusually prompt. Pain from these wounds was very moderate; the proportion of recoveries is unusually large. O.

TO FIGHT BEHRING'S PATENT.

Dr. Wellington Adams, of this city, has been retained by Messrs. Parke, Davis & Co., of Detroit, Mich., to break down the claim of Behring. It will be a battle royal. We must congratulate Dr. Adams that he is retained in a case which is unique in the history of jurisprudence and of medicine.

Messrs. Parke, Davis & Co. have made a wise selection in their choice of counsel. B.

Doctor's Papoose.—Some years ago a banquet was tendered Generals Brooke and Crook in one of our western cities. On this occasion all the speakers paid tribute to the fighting qualities of these gentlemen, especially with their Indian campaigns. Among the speakers was an esteemed friend of mine, who, after rising, informed Generals Brooke and Crook that he felt hurt that they should monopolize all the Indian campaign thunder. "I have killed a few Indians myself," he said, with a pretense of great pride. And while the banqueters were wondering how his remark should be taken, he added: "You know I was a doctor and practiced quite extensively among the Indians." This brought down the house, for probably a number of those present remembered that the doctor's first patient was an Indian papoose—which was not permitted to witness the wonderful progress of the city of its birth. In other words, the papoose died; but, as the doctor explained, "it would have died, even had I not been the only doctor in X." O.

Practical Diagnosis.—The Use of Symptoms in the Diagnosis of Disease. By HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Third edition, enlarged and thoroughly revised. In one octavo volume of 615 pages, with 204 engravings and 13 full-page colored plates. Cloth, $4.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

Professor Hare's *Practical Diagnosis* is quite as ingenious and cleverly executed as his *Practical Therapeutics*, the two books being in reality companions, written with reference to each other and constituting together an admirable practice. The author has peculiar aptitude in selecting the pith of any subject and presenting it in the practical order. This is well illustrated in his *Diagnosis*, the plan of which is the exact reverse of that ordinarily adopted in text-books, the author preferring to present his subject as a disease necessarily presents itself to the physician, namely: *symptoms—first*. Hitherto the books have begun with diseases and have detailed their symptoms, obliging the physician to perform a mental reversal, a difficult process which Dr. Hare saves his readers by doing it for them. He makes symptoms his units, arranging them for maximum convenience under two main heads, "The Manifestation of Disease in Organs," and "The Manifestation of Disease by Symptoms," the first part being under a regional classification, and the second dealing with general symptoms, such as fever, headache, vomiting, pain, etc. Obviously, on the discovery of a symptom, the reader has the most rational and easy reference to the description of all the diseases in which it may appear, and if the selection is not at once clear, it may be determined by similarly referring a second or third symptom to the text for confirmation. The ingenious and copious index consummates the facility with which *Hare's Diagnosis* may be used. Under each disease is given a list of its symptoms, and under each symptom a list of the diseases in which it occurs, so that the reader, on the discovery of a symptom, has a suggestion of all the diseases in which it occurs, and, for confirmation, under the various diseases, he has brought to his attention the other symptoms to be looked for. The book is richly and usefully illustrated. It is not difficult to understand the popularity which has brought this work to its third edition in two years, opportunities which the author has improved by subjecting it to thorough revisions.

Pathology and Morbid Anatomy.—By T. HENRY GREEN, M. D., Lecturer on Pathology and Morbid Anatomy at Charing-Cross Hospital Medical

School, London. New (eighth) American from the eighth and revised English edition. In one very handsome royal octavo volume of 600 pages, with 215 engravings, many being new, and a colored plate. Cloth, $2.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

When a work has run to its eighth edition in England and its eighth in America it presents credentials of merit which cannot be questioned. Green's has undoubtedly been the leading text-book in its department, and as its useful combination of subjects has not been paralleled, despite its success, it is fair to infer that its exceeding merits are its best protection from competitors. This is no doubt aided by the very low price which its large sale has rendered possible. The new edition preserves the characteristics which have won popularity, but shows a revision and rearrangement on every page in conformity with the advances of the subject. The series of illustrations has always been notable for clearness and beauty, and in this edition many new ones will be found.

Manual of Chemistry.—A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-Book specially adapted for Students of Pharmacy and Medicine. By W. SIMON, Ph. D., M. D., Professor of Chemistry and Toxicology, College of Physicians and Surgeons, Baltimore; Professor of Chemistry in the Maryland College of Pharmacy. New (sixth) edition. In one 8vo volume of 532 pages, with forty-six engravings and eight colored plates illustrating sixty-four of the most important chemical tests. Price, cloth, $3.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

Successive editions of this standard *Manual of Chemistry* follows each other with significant rapidity. It has clearly won its place at the head of the many text-books on chemistry offered to medical and pharmaceutical students, and the cause is not hard to find. The author covers a great deal of ground, succinctly and in a well-proportioned distribution which neglects nothing of importance. The student advantageously gains from a single volume a connected idea of inorganic and organic chemistry and of medical and pharmaceutical chemistry as developed from the fundamental data of the science. Particular favor has been won by the unique and admirable set of plates giving the actual colors and color changes of sixty-four of the most important tests. The student and physician have in them a permanent set of standards of comparison for the determination of important and often vital questions depending on the test tube. It would be difficult to conceive of a better text-book or more practical consultant for students and practitioners of medicine and pharmacy.

Medical Diseases of Infancy and Childhood.—By DAWSON WILLIAMS, M. D., Physician to the East London Hospital for Children. In one 12mo volume of 629 pages with eighteen illustrations. Cloth, $2.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

Dr. Williams has prepared a work designed to afford the younger practitioners, and those who have not paid special attention to the sub-

ject, a guide to the clinical examination and treatment of disease as it occurs in infancy and childhood. He has adopted the rational plan of regarding the subject from the broad standpoint of general medicine, describing disease as it especially affects the young, pointing out the causes of its special incidence, and the peculiarities which the circumstances of child life impress on familiar diseases, and detailing the treatment which pathology, clinical observation and extended experience have shown to be most appropriate and efficacious. The volume will be of service to the general practitioner and pediatrist.

A Text-Book of Materia Medica, Therapeutics, and Pharmacology.—By GEORGE FRANK BUTLER, Ph. G., M. D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Medical Department of the University of Illinois. Octavo, pp. 860. Price, cloth, $4,00; sheep or half morocco, $5.00. Philadelphia: W. B. Saunders, 1898.

This is the second edition of Professor Butler's excellent text-book, and appears within two years of the first edition. In that short time there have been many advances in pharmacology. The book is fully abreast of the times, and, doubtless, will reach a third edition at an early date.

A Guide to the Clinical Examination and Treatment of Sick Children.—By JOHN THOMSON, M. D., Extra Physician to the Royal Hospital for Sick Children, London; Lecturer on Diseases of Children, Edinburgh School of Medicine. In one crown octavo volume of 350 pages with fifty-two illustrations. Cloth, $1.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

The literature of pediatrics is enriched with this compact volume, practically on diagnosis and treatment. The author has properly approached his subject through the field of clinical medicine, in recognition of its rational relationship with other human affections, and the advantages of so regarding it. He points out the initial difficulties, and encouragingly assures his readers that when once they are surmounted, practice among children is at least as easy as among adults. He has endeavored to convey a command of the necessary clinical methods, to inculcate the tact and sympathy which are particularly necessary to success, and to show where the line runs between normality and abnormality, a matter of especial and obvious practical importance.

Schenk's Theory: The Determination of Sex.—By DR. LEOPOLD SCHENK, Director Embryological Institute, Vienna. Authorized Translation. London: The Werner Company.

Dr. Schenk's position in the scientific world was sufficient to excite curiosity as to what his views might be on the great question of sex, and expectations were raised that he had wrested another secret from nature. How far he has gone he tells us in this little work. For years the question of sex occupied his attention, and he has recorded facts as

he observed them in the hope of stimulating others to wider observation.

The work is one for the student. It is written in a dry, scientific style and requires close attention. Professor Schenk recognizes the work done by others, and describes the views which are held by many other writers. Robin believed that in warm climates there was an excess of female children and in cold an excess of males, whilst another favorite theory was to the effect that if the sexual power of the male was greater than that of the female, a female child resulted. It is this theory which appeared to find favor with Professor Schenk, with additions to it derived from Professor Schenk's own observations and deductions. The sex of the offspring, according to Professor Schenk, depends, in a great measure, upon the condition of the mother during her pregnancy. If the mother is highly fed then the result will be she will produce a female child, so that, by dieting, Professor Schenk concludes it would be possible to produce male children. Professor Schenk does not pretend to go any further at present than the following provisional conclusions which are to the following effect:

"First of all, some would say that in certain regions and among certain peoples where meat forms the principal diet only male or principally male offspring would be anticipated. The nutrition of the mother certainly plays a very important part in the condition of the ovum within her body.

"The different experiments which breeders have made, and the observations which have repeatedly shown in the case of the invertebrata (V. Berlepsch, *Die Biene und ihre Zucht*, second edition; Landois, *Physiologie*) a connection between food and the development of sex, leaves no doubt, that, in the case of the human subject also, a certain diet of the mother would not be without influence on the ovum developing within her. Here, however, in the case of the ripening of the ovum, according to my opinion, the result does not depend on the diet alone, but rather on the process of metabolism in the mother. How the physiological combustion goes on in the organism, and what changes take place in it, in consequence of the altered diet until the sugar entirely disappears, is, in the case of human beings, of the highest importance and furnishes us an index of the consequences. In individual cases the diet is directed in accordance with the results that show how the food has been assimilated and does not depend upon these alone. In other words, whether the mother eats much meat is a secondary consideration. Whether, and how the food is taken, is completely made use of in the process of combustion, that is a matter of importance for the purpose we have in view.

"Any one, who keeps before him the fundamental principles of this theory, will see plainly that it is possible, under certain circumstances, to procure male progeny by means of the influence we have indicated. *The wish to have female progeny is a desire for the gratification of which it is not at present possible to give any directions.*" (p. 160.)

Our readers will notice the careful way in which Professor Schenk formulates his propositions. A long continued series of observations extending over many years will have to be made, and can easily be made.

The book should be read in detail to fully appreciate the observations, deductions and facts of the learned director of embryology.

Diseases of Women: A Manual of Gynecology.—Designed especially for the use of Students and General Practitioners. By FRANCIS H. DAVENPORT, M. D., Assistant Professor of Gynecology in the Medical Department of Harvard University, Boston. New (third) revised and enlarged edition. In one handsome 12mo volume of 387 pages, with 155 illustrations. Cloth, $1.75, net. Lea Brothers & Co., Philadelphia and New York.

In its new edition Professor Davenport's work for the first time treats the whole domain of gynecology. Admirers of his earlier editions will still find that for which they sought other works in vain, namely, the non-surgical methods, in ample detail, and they will be gratified to find the work equally satisfactory on the surgical side. The author has wisely preserved its moderate size, though he has added a quarter to its text, and a half to its number of illustrations. The book goes again to the profession with an enviable reputation which its new features and fresh revision will increase.

A Treatise on the Science and Practice of Midwifery.—By W. S. PLAYFAIR, M. D., LL. D., F. R. C. P., Emeritus Professor of Obstetric Medicine in King's College, London; Examiner in Midwifery to the Universities of Cambridge and London; Seventh American from the ninth English edition. In one very handsome octavo volume of 700 pages, with 207 engravings and seven full-page plates. Cloth, $3.75, net; leather, $4.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

A work of which sixteen editions have been demanded by England and America has not won the recognition of two most practical nations against heavy competition without solid merit. Its most important department is one of the most progressive in medicine, and frequent revision is necessary in any book which would adequately represent its present condition. Playfair's popularity has brought sufficiently frequent opportunities for such revision and they have been improved. This new edition gives evidences of revision to date on every page, and as it is authoritative, clear, well illustrated and moderate in price it will doubtless continue to be the favorite students' text-book and the practitioners' trusted counsellor.

The Elgin Milkine Co. have a representative visiting St. Louis physicians. This company manufactures a food highly recommended for infants and invalids.

Mr. L. M. Heilbrun, President of the A. L. Hummel Advertising Agency of New York City, has been looking after the St. Louis business of his firm for several days. This agency handles nothing but medical journal advertising, and is therefore able to carefully guard the interests of its patrons.

Dr. Gilman.—Dr. H. A. Gilman, for many years Superintendent of the Iowa Asylum at Mt. Pleasant, died in that city, October 10th, of apoplexy. He was well known as an efficient officer and learned physician, and was particularly noted for executive ability.

Small Classes.—Most of the medical schools in Iowa report small classes, owing to the new medical law which will require all physicians asking an Iowa license to pass an examination. No person can apply for examination except he be a graduate of a four years' medical school. Some members of the profession think the law unconstitutional.

New Professor of Gynecology.—Dr. John Young Brown, lately President of the Mississippi Valley Medical Association, has been elected Professor of Diseases of Women and Clinical Gynecology in the St. Louis College of Physicians and Surgeons.

Military Tract Medical Association.—The fifty-ninth session of this Society was held at Canton, Ill., October 20th and 21st, with a large attendance of representative physicians.

Dr. Wilson.—Dr. Robert Edward Wilson, of St. Louis, formerly with Dr. A. C. Bernays, has opened an office in the Gerhardt Block, corner of Vandeventer and Laclede avenues.

Dr. Punton.—Dr. John Punton has purchased *Langdale's Lancet*, and has changed its name to the *Kansas City Lancet*. We welcome the doctor to the editorial guild.

Presbyterian Hospital.—An attempt is being made to place the Woman's Hospital of St. Louis under Presbyterian control. The Woman's Hospital is a deserving institution. It has no staff, but any physician can send his cases there and be sure they will not be bothered by officious meddlers.

Married.—Dr. W. C. Ussery, of St. Louis, was married on October 27th, to Mrs. Margaret Mather, of Paris, Kentucky. Dr. Ussery is house physician at the Lindell Hotel, and is a well-known teacher of chemistry.

The Retail Druggists, in answer to a call from the Chicago association, met this week at the St. Nicholas Hotel, and formed a National organization. The following officers were elected: H. P. Hynson, Baltimore, President; J. L. Heckler, Cleveland, First Vice-President; W. Wooten, Chicago, Secretary; Jno. W. Lowe, New Haven, Treasurer. Those in attendance report an enthusiastic and satisfactory meeting.

ABSTRACTS.

The Kinetoscope in Surgical Instruction.—"At the meeting of the British Medical Association just held at Edinburgh," says the *Revue Scientifique* (September 3d), "M. Doyan read a paper with illustrations on the services that kinetoscopy can render to the teaching of surgery and in divers operations. This method which enables us to follow all the details of an operation, has various advantages over simple projections and stereoscopic views of which the principal are the following: (1) The considerable enlargement of the negatives and their rapid succession renders all retouching impossible; (2) the indefinite reproduction of the negative facilitates popular acquaintance throughout the world, not only with operatory processes, but also with the skill and personal qualities of each surgeon. No confusion will, in future, be possible between processes often imperfectly discriminated by those who have had access only to descriptions and designs that are not sufficiently detailed. Still further, the surgeons of all countries can, without the trouble of going to visit the principal surgical clinics of the two worlds, decide in advance in which places they will be likely to learn most. The speaker thinks that from the point of view of instruction, demonstrations should be made in the following manner: The professor or lecturer first describes the operation, whose different stages are, from time to time, represented with the aid of fixed projections representing either schematic designs or certain of the kinetoscope pictures enlarged and selected for the purpose. The method being once described the operation is then shown by means of the kinetoscope, just as it was really performed. This kind of animated photography of operations is also interesting in giving the surgeon a chance to see himself operate, and consequently of modifying details of his technic, if he thinks proper."—*Literary Digest.*

Saccharated Extract of Thymol in Whooping-Cough.—Fischer (*Deut. med. Woch.*, July 7, 1898) treated five of his own children with thymol extract prepared by Taschner in Berlin, and called by him "pertussin." The mixture is sold in bottles, and has a brownish color, aromatic smell, and is of a syrupy consistence. Taschner's formula is the following: Thymol, one part; and syrup, seven parts. Children take it well in doses from a half to one tablespoonful three times a day. The effect of the medicine was quite remarkable in these cases; the distressing cough was soon relieved, and the attacks of cyanosis speedily diminished. Several of the well-known remedies had previously been tried, with no success. The author tried giving the extract in other conditions, such as chronic catarrh of the larynx and bronchi; these cases were greatly relieved by pertussin—it diminished the tendency to spasmodic cough, and at the same time loosened the phlegm. Cases of emphysema, in which there was a sense of oppression on the chest, were greatly benefited, and in a few days the patients were able to walk upstairs with little discomfort.

The Treatment of Chronic Rheumatism.—A. Bier (*Münch. med. Woch.*, August 2, 1898) discusses the use of hot air and passive hyperæmia in the treatment of this disease. He says that some years ago he used the hot air treatment for chronic rheumatism after having tried it for tuberculous joints. Recently the hot air method has attracted much attention. Undoubtedly it lessens in a striking manner both the pain and stiffness in the joint. Almost the only effect produced by the hot air is the active hyperæmia. The author maintains that he can get better results by passive hyperæmia. Often the good results are marked, and the details of such a case are given. In rare cases of chronic rheumatism Bier has met with patients who maintained that they obtained benefit from hot air when the passive hyperæmia failed. He has only seen himself one patient who was not improved by the latter method. In advanced cases the pain, at any rate, can be relieved. A further advantage of passive hyperæmia is that the method of using it is simpler than in the case of hot air. Both Schüller and Baümler say that they have seen good results from it. Passive hyperæmia, if properly carried out, should produce no pain. The leg should be bandaged from the toes up to the affected knee, and then an elastic bandage is applied above the knee over another bandage. Each case must be observed as to how far the passive hyperæmia can be borne with safety It must not cause pain, and if pain is previously present it should be relieved by it. If the joint is painful the method may be used continuously, but the position of the bandage must be changed every twelve hours. In other cases it may be employed either during the day or night. The diseased joint itself is not bandaged. If pain is produced by this treatment it is due to its faulty application.

Irregular Menstruation in Young Women Due to Anæmic Conditions.—(H. Edwin Lewis, M. D., *Vermont Medical Monthly.*)—The young physician just starting into practice cannot help but be impressed with the frequent occurrence of menstrual disorders in young girls during the period just succeeding the age of puberty. The metamorphosis of a girl into a woman, consisting, as it does, of structural and functional changes throughout her body, in many instances leaves behind pronounced alterations in the quality or even quantity of the blood current. How common it is to have a mother bring her daughter to the physician and say: "Doctor, I would like to have you do something for my daughter. For nearly a year she has been losing interest in everything and seems to be completely worn out. She has no appetite and absolutely no ambition for work, study, or play. She does not lose flesh or grow thin at all, but her color is so poor and she seems so weak that I fear she is going into consumption."

Inquiry on the part of the doctor elicits the further information that the young lady in question is sixteen years old, or thereabouts, and that she is a school girl. A year or two ago she first menstruated, and since that time has been unwell only twice, or at irregular intervals, varying anywhere from three to nine months. Her bowels are either constipated or the reverse, and she may complain of headaches, vertigo, palpitation of the heart, insomnia, indigestion, etc., etc. The pale face, with its sallow, greenish tinge, the bleached tongue, the colorless conjunctivæ and finger-nails, tell well the tale of impoverished blood. Combine the history

with the objective symptoms and the diagnosis is clear of chlorosis or green-sickness. The absence of cough or pulmonary symptoms excludes the dreaded "consumption," but we have instead a condition of the blood in which the essential constituents are diminished and the whole quality of the life-giving current so depreciated that the various organs of the body are unable to perform their normal functions. The uterus is small and illy developed, and the supply of rich blood it so urgently requires in its developmental state is not to be had. Is it any wonder, then, that the chlorotic girl does not menstruate regularly? It is a great wonder that she ever menstruates at all. Correct the anæmic or impoverished condition of her blood, and the physiological function of her uterus will be resumed as naturally as that of any other organ.

How this chlorotic condition can best be corrected is the next question, and one which, because of its frequency, concerns every practicing physician. Countless remedies have been presented to the profession, but far and foremost above them all is iron, notwithstanding certain high authority to the contrary. Arsenic is certainly valuable, but it ranks far below iron or even manganese in the therapeutics of anæmia. In order to be most efficacious, however, the iron should be in its most readily assimilable form, and until recently the carbonate and albuminate have been supposed to present this requisite in the highest degree. But since manganese has grown in favor as an adjuvant to iron, a new preparation has been submitted to the medical profession, *and in every way it has proven itself an ideal one.* I refer to Dr. Gude's preparation of the peptonate of iron and manganese, known as pepto-mangan. This admirable combination of iron and manganese is readily taken into the human economy and appropriated to its needs, without deranging the weakest alimentary tract, or hindering in any way the normal processes of digestion, assimilation, and excretion. It should be given in water or milk, in teaspoonful doses after meals, and its administration is invariably followed by the results desired.

But in order that the medical treatment of chlorosis may be most valuable and efficient, it should be augmented by auxiliary treatment, consisting of careful attention to diet and exercise. It goes without saying that the food of an anæmic girl should be most nutritious and particularly abundant in albumen, while the exercise should aim to provide greater qualities of oxygen in the form of pure air, without lowering the vitality. Walking, skating, tennis, or bicycling in moderation, are all able to supply the demand for exercise.

Treatment laid down on the above lines, followed out in every instance, with good habits of hygiene and a careful observance of nature's demands, will regulate the various functions of the body, and the menstrual function will prove no exception to the rule.

The following cases will substantiate the above:

CASE I.—Miss C. S. K.; seventeen years old; decidedly anæmic and much troubled with constipation. First menstruated at fourteen, since which time she has never been regular, flowing profusely sometimes twice a month, and other times going three or four months without menstruating at all. Has frequent fainting spells and a decided anæmic heart murmur. At time of coming under observation had not menstruated for two months and ten days.

Treatment consisted of a regulated diet, tablets of aloin, strychnine, belladonna and cascara sagrada, one each evening until bowels were regular, and teaspoonful doses of pepto-mangan (Gude) after meals. Gradually the fainting spells and heart symptoms disappeared, and on the fifteenth day after commencing treatmeat she began to menstruate, the flow being natural in quantity and continuing four days. Treatment was continued and twenty-nine days later she menstruated again, continuing this time five days. Soon after this the pepto-mangan was stopped. From now on up to the present time, a period covering three months, her menses have appeared regularly every twenty-eight days.

Her whole appearance has changed and in every respect she appears well and strong. Period of administration of pepto-mangan, fifty-five days.

CASE II.—Miss K. M.; aged twenty. Menstruated first at age of fifteen and was fairly regular for three years, but since an attack of typhoid fever, two years ago, has never known when she was going to be unwell. Patient was not thin, but face was pale and yellowish, hands and feet were cold "all the time," and her whole condition was one of "*blood poverty.*" Complained of frequent attacks of diarrhœa following constipation.

Treatment consisted of plenty of out-door exercise, good food with an abundance of milk, and pepto-mangan (Gude) in teaspoonful doses after meals.

Her restoration to health has been rapid and satisfactory. She has menstruated three times since beginning treatment, the longest interval being thirty-one days. Says she is all right, and her appearance certainly sustains her words.

In this case the administration of pepto-mangan covered a period of thirty-six days.

CASE III.—Miss D. L.; school girl; aged fourteen. For two years she had been troubled with headaches, dizziness and short breath, fainting away at the slightest provocation. Had no appetite, and, as her mother expressed it, "for the last six months has been going down hill pretty fast." Had been treated by a physician for heart disease, but received no benefit. Menstruated first seven and a half months ago, "but had not seen anything since."

Examination showed heart to be normal, although it was a trifle fast, and a slight murmur could be determined when patient was in a recumbent position, evidently anæmic in origin. Lungs proved to be all right.

Her general condition was anæmic, and she was put on pepto-mangan (Gude), a teaspoonful after meals, and sent into the country where she could be out doors most of the time and have plenty of eggs and milk. A letter from her mother says that she has changed so that she can hardly believe it is the same girl. Furthermore, her menses appeared twenty-one days after starting the pepto-mangan and returned again twenty-nine days after. The pepto-mangan was ordered stopped, and since then I have not heard direct from the patient, although from her father I learn that she is "perfectly well" and coming home soon.

Period of administration of pepto-mangan, fifty-six days.

CASE IV.—Miss L.; aged eighteen. Had never menstruated. Her general appearance was one of profound anæmia. A careful examination eliminated any abnormality of genital apparatus. Organs normal in rela-

tion, but under-sized. Prescribed pepto-mangan in teaspoonful doses after meals, and gave general directions as to diet, etc. Began to menstruate thirty-two days after beginning treatment, the flow continuing one week. Twenty-nine days later she menstruated again. At present writing she is still under treatment, and is due to menstruate in seventeen days. Her whole condition is very much improved.

The Horrors of War.—We are all ready in times of peace to talk glibly of the "horrors of war," but when it comes to the point we are too apt to expect to have the "pride, pomp, and circumstance of glorious war" without its horrors. When the horrors come the sentiment of a civilized community is shocked, and the public asks for a scapegoat. Some of the horrors cannot be prevented by foresight, for war is irrational, but others can. When the Emperor of Russia during the Crimean war talked of General Janvier and General Février, we were very angry, but the jest would have lost its bitterness if we had looked the inevitable in the face at the beginning. The severe losses of the American army in Cuba from yellow fever and malaria, and the sufferings endured by the wounded immediately after the fighting, have led to acrimonious attacks upon the medical service of the United States army. This will not surprise any one who is acquainted with the history of the British Army Medical Service. It was only by very bitter experience that our politicians learnt that an adequate war service cannot be improvised from a service undermanned even on a peace footing; and still more experience was needed to convince commanding officers, if, indeed, they have even yet learnt the lesson, that the best military dispositions may be completely compromised by a failure to understand that sanitary precautions are a necessary part of successful warfare. Napoleon is generally admitted to have been the greatest military commander of modern days, and no one who would read his letters and orders during his successful years can fail to be struck by the immense personal interest which he took in transport and in its organization. The memoirs, too, are full of it, Bourienne, the most intimate of all, in particular. The public is apt to assume that war means fighting, whereas the greater part is organization and preparation for the fights, which were never numerous in any campaign, and are fewer than ever nowadays. Statements made by Dr. Nicholas Senn, of Chicago, chief of the operating staff of the army at Santiago, appear to prove that the precautions against yellow fever recommended by Colonel Greenleaf, chief surgeon of the army in the field, "were entirely ignored by the commander of the invading force." "It required," he adds, "only the usual time for the disease to make its appearance, and when it did so it was not in a single place, but all along the line from our entrenchments to Siboney." Transport was deficient, and on certain important occasions was refused. Yet, in spite of the obstacles placed in the way of the medical department, Dr. Senn is able, after experience of operating in all the hospitals, to state that he "was always able to find the essential antiseptics and dressing material required in military practice," and that there was no lack at any time of stimulants and anæsthetics.

An Ideal Sanatorium.—S. Bernheim and Blanchet (Paris), say that although the isolation of consumptives in hospitals is a prophylactic proc-

ess, it is not very useful for the patients themselves, who, placed in indifferent sanitary conditions and an impure atmosphere, derive relatively little benefit from the measure. What is needed is sanatoria constructed expressly for consumptives at altitudes of 800 to 1400 meters, far from the dwellings of men, and particularly from any large center of population. The authors suggest the following plan of sanatorium as a type: An immense central building connected with two wings by vast glass-covered galleries. On the south front there should be a gallery 200 meters in length for the open-air treatment. All the bed rooms should have a southern aspect, and should resemble a surgical operating room in appearance and in furniture; they should be capable of being easily made aseptic. Each one should have accommodation for only two patients. As regards the financial side of the question, the authors contend that if the sum recently voted by the Paris municipal council for the isolation of consumptives were to be devoted to the construction of sanatoria, the city of Paris would be able at once to have twelve model sanatoria, which would accommodate 12,960 consumptives every year. This would have the further advantage of setting free a large number of beds in the general hospitals which are badly needed for other patients.—*British Medical Journal.*

Thiol in the Treatment of Diseases of the Upper Air-Passages.—A very large percentage of the diseases of the upper air-passages are incited by adenoids, and while this condition is, perhaps, often secondary to nasal obstruction, it is, nevertheless, manifest that this inflammatory condition will not subside even when the nasal obstruction is removed. Therefore, the removal of post-nasal growths is imperative; not only growths but adenoid hypertrophies should be just as surely and as thoroughly removed; and, say what we will, this operation requires a thorough knowledge of the anatomical relation, and skill in the use of the instruments designed for the removal of this hypertrophic tissue, growths, etc. Hypertrophied tonsils should be removed by the amygdalotome, and to be successful must be thorough, so that no fragments protrude beyond the pillars of the soft palate.

Of the diseases affecting this region, due to a constitutional condition, might be mentioned, first, atrophic rhinitis. A very large percentage of the patients afflicted with this disease succumb to tuberculosis sooner or later, and of those who do not, their prolongation of life may be attributed to favorable hygienic and sanitary environments; also to faithful and careful cleansing of the parts and keeping the physiological action of the nose in as perfect condition as possible. The best method of doing this is the daily use of the syringe with pure hot water. The syringe manufactured by Tiemann & Co., with a short nasal tip for use in the anterior nares, with a shifting shield which has a post-nasal tip also, is one that can be relied upon for thorough cleansing of the nasal lumen and post-nasal space. Not only is this plan of treatment beneficial in removing putrid secretion, but the warmth, irrigation, and massage have an influence in equalizing the circulation and restoring the lost nerve power. As a means of giving rest to these overwrought, worn, and exhausted parts, after such cleansing, it is desirable to find some remedy that will physiologically put

the parts in splints. This I believe I have found in the following prescription:

℞ Powdered thiol ..... gr. x
Menthol ..... gr. v
Liquid blancolin (paraffin liquid) ..... ℥ j
M. Sig.—Apply three or four times a day by means of an oil atomizer,

This proves of still greater benefit if it can be used as hot as possible consistent with the comfort of the patient.

I was led to make a trial of thiol because of the good results I had obtained in some forms of skin diseases I had treated with this remedy, and I had also found it beneficial as an air-tight dressing in fresh wounds. The foregoing prescription I am using with very satisfactory results after operations within the nasal lumen.—DR. H. L. ARMSTRONG, in *New York Medical Journal.*

The Treatment of Tetanus.—When antitoxic serums were introduced, tetanus was one of the diseases in the treatment of which their value seemed most probable. It can, however, hardly be claimed that results have fully borne out such favorable anticipations. The utility of the antitetanic serum, of which no fewer than three varieties are on the market, is inversely proportional to the acuteness of the disease; or, in other words, good results can only be awaited with confidence when the symptoms tend from the first towards chronicity. The reason of this appears to be the rapid production of toxin by the bacilli, even when present in limited numbers. As with syphilis, the first symptom of the disease indicates that general infection has already taken place, and that the toxic products have obtained a long start. For each hour of this start the quantity of antitoxin required to avert a fatal issue must be increased almost in geometrical progression. In these circumstances it became obvious that the therapeutic action of tetanus antitoxin was in general much less than that of antidiphtherial serum, and most authors have, in consequence, spoken guardedly as to its value. Ehrlich's theory, that the formation of antitoxins within the body arises from the affinity of toxins for certain cell elements by a mutual adaptation of molecules—the so-called "lock-and-key" theory—has acquired practical importance as the result of the experiments of Wassermann and Takaki on the relation of the central nervous system to the tetanus poison. They find that the spinal cord and brain of every animal which they have investigated possess definite antitoxic properties in respect of the tetanus toxin; furthermore, they can protect if injected in the form of emulsion twenty-four hours before the toxin, and can save life when inoculated many hours after it.[1] The first clinical application of these views appears to have been made by Babes, who, in the course of a paper on Ehrlich and Wassermann's work, read before the Bucharest Scientific Society, incidentally mentioned that he had administered extracts of the central nervous system in cases of tetanus with satisfactory results. The question has since then been taken up, no doubt independently, by Dr. Krokiewicz, of Warsaw, whose paper[2] has a special value in

[1] *Berl. klin. Woch.*, 1898, No. 1.
[2] *Wiener klin. Woch.*, 1898, No. 34.

that it compares the old with the new methods of treatment under almost experimental conditions. It happened that Dr. Krokiewicz had, in July of this year, two cases of tetanus in his wards almost simultaneously; the one was treated with antitoxin, the other with a fresh emulsion of the brain of a calf. There was but little difference in the virulence of the cases, for whereas in the former (a man) the incubation period was shorter and the disease, in consequence, more acute, in the latter (a woman) there was more marked trismus, with consequent difficulty in feeding, and the general condition was much less good. The course under treatment was very different in the two patients. In the woman, two injections of brain emulsion, representing in all about half an ounce of brain substance, effected a complete cure in eleven days, with no ill effect other than the formation of two small abscesses at the seat of the second injection, which was somewhat too concentrated. The man, on the other hand, received four doses of antitoxin (1 in 10,000) amounting in all to 196 c.cm., and yet was not cured for eighteen days. Furthermore, the brain emulsion produced an almost immediate alleviation of the tetanic symptoms, so that the patient begged to have the injection repeated; the administration of the antitoxin, on the other hand, was followed by severe paroxysms, sleeplessness, fever, and a sense of dread which allowed it to be repeated only under the pressure of dire necessity. Although too much must not be based on the result of a single case, it seems that the injection of brain emulsion may prove to be a valuable remedy in tetanus; the latest statistics of the use of the antitoxin show eleven deaths in twenty-two cases.[1] In any event, a line of treatment has been opened up which may lead into a field of which it is at present impossible to define the limits.—*The British Medical Journal.*

Antitubercle Serum in Tuberculosis.—(Landon B. Edwards, M. D., *Medical Record*, Vol. LV., No. 15.)—In the cases submitted no auxiliary treatment has been neglected (especially emphasizing the value of beechwood creosote by almost continuous inhalation and internal administration), but serum has proven to be an invaluable help. My records stand in round figures as follows: Total number of cases of tuberculosis of the lungs treated with antitubercle serum (Paquin) since January 1, 1896, thirty-five. Total deaths, five. Each of these cases came into my hands in a practically hopeless condition, apparent to the most casual observer. Total recoveries, eleven. By this I mean that bacilli have disappeared from sputa; healthy respiratory murmur has been restored; chest expansion increased from about one inch to two and one-half inches or more; flesh increased to about normal, according to height; appetite for meats restored, not despising pieces of fat, etc. The patients look well, and, according to physical signs and symptoms, are well. Two other patients, who came under my care after grounds for hope were gone, will die shortly. As to results in two other cases, well advanced in consumption, I am doubtful—to-day apparently improving; to-morrow worse, fluctuating in condition. Three or four other patients are holding their own, inclining to improvement, thus encouraging hope. The other patients are improving, and some, I believe, will recover.

[1] Erdheim: *Wiener klin. Woch.*, 1898, No. 18.

In this estimate I have referred to some patients who are not now under personal observation, living at distant points, but from most of whom I hear occasionally. They are under the care of their home physicians, who, I believe, follow out the general line of treatment advised.

This record is greatly better than I ever had by any other agents than serum. I have used no other serum than Paquin's, being pleased with the results, except in several instances of apnœic attacks alarming the patient, nurse, and doctor, but without any fatality. The rectal method would, probably, avoid this unpleasant feature in sensitive patients.

The Etiology of Sarcoma.—In a recent paper (*Annals of Surgery*, March, 1898), Dr. W. B. Coley discusses this question, drawing attention especially to the influence of traumatism. During the past eight years he has had under his care 170 cases of sarcoma, and in 46 cases (27 per cent.) there was a history of traumatism. He quotes other statistics with much the same finding, among others those of S. Gross (*American Journal of Medical Sciences*, 1879), who collected 165 cases of sarcoma of the long bones, "more than one-half of which gave a history of trauma." In the majority of cases the injury was a blow, contusion or crush. A point of much interest is the interval between the accident and the appearance of the tumor. In Dr. Coley's own cases 50 per cent. appeared within two months, some within one week, in about a fourth of the number not until the lapse of a year. In 316 cases of traumatic sarcoma collected by Lowenthal, the sarcoma was observed within one month of injury in over 40 per cent. In four of Dr. Coley's cases the tumor appeared *at once*.

The most interesting part of Dr. Coley's paper is that in which he discusses the pathology of this condition. He refers to the various theories explaining the development of these tumors after injury. Butlin, in England, who has made valuable contributions to this subject, and Billroth, in Germany, believe in a constitutional diathesis. Butlin parallels the case with struma, or rheumatism. He believes the injuries would be harmless if this special diathesis were absent.

Then there is the local predisposition theory of Virchow, a condition either inherited or acquired; mechanical irritation causing a specific predisposition of the tissues towards tumor development. The bulk of evidence shows that injury may have a direct bearing on the formation of tumors. But in what way? This is the point. Coley quotes Harrison Cripps, who says that the tumor "must not be regarded as the disease, but as the product of some hitherto unexplained irritation (irritant), a portion of which is almost certainly left behind, and which will in time cause a reproduction of the disease." It is to the determination of this *materies morbi* that Coley applies himself. He declines to discuss the evidence as to sporozoa or micro-parasites, described from time to time as found in sarcoma.

"Passing over all this more or less conflicting mass of evidence, and even the recently reported successful inoculation of sarcomatous tissue from man into animal by Jürgars, I wish to approach the subject entirely from a clinical standpoint. I believe that the clinical evidence in our possession, aside from any bacteriological or pathological aids, point very strongly towards a specific infection as a cause for sarcoma. First, the

analogy between sarcoma and tuberculosis has long been observed, and this was clearly pointed out by Sir John Simon in 1877, long before the discovery of the tubercle bacillus. Shattock observes that this analogy is so close and striking that there is not a single step in a life history of tuberculosis that has not an exact counterpart in sarcoma. This analogy goes even further than clinical symptoms and gross lesions; for the best microscopists have not infrequently to admit that they are unable to differentiate a tuberculous tumor from a round-celled sarcoma, even after repeated examination and with the aid of a clinical history. Similar analogy might be pointed out between sarcoma and actinomycosis, glanders, and syphilis—all diseases known to be due to an infectious agent."

Dr. Coley considers that the same arguments by which we explain tuberculous inflammations of bones or joints, after injury, in persons previously apparently in good health, or the occurrence of a suppurative process without division of the overlying skin, are valid in the case of sarcoma. "That we have not found this infectious cause is no argument that it does not exist." He also combats the objection to his position, based on the fact that tumors result in only a very small proportion from injuries, by pointing out that the resisting powers of the individual and his tissues must be considered, and he points out that this is exactly what we should expect did we know sarcoma to be an infectious disease.

Dr. Coley gives a short *résumé* of his 46 cases, from which we learn that in 20 cases his method of treatment by the erysipelas toxins was tried. In 11 of these it proved to be of no use; in 4 it did some good, so that the tumor became small enough to remove by knife, or it did good for a time, but the tumor recurred; and in 5, *i. e.*, in 25 per cent. of the cases in which it was tried, it caused complete and permanent disappearance of the tumor. This fact in itself is strong supporting proof of Coley's theory of infection. But the time has not yet come for this question to be decided.

There is one practical point raised in the study, and that is, its relation to life and accident assurance. If sarcoma in a proportion of cases is regarded as due to injury, the companies are liable. German surgeons have been much interested in this question. "The present practice in American companies is, I believe, to admit the trauma as a causative factor only in cases where the interval between the injury and the development of the tumor is very short."—*Maritime Medical News*, Halifax, N. S.

Rhinolith or Nasal Calculus.[1]—William H. Poole, M. D., of Detroit, reports the following in the *New York Medical Journal:*

Miss L. K., aged twenty-four years, from whose nose this was taken, consulted me January 1, 1898, regarding her nasal catarrh, with which she stated she had been afflicted ever since her childhood. Ten years ago she had been treated for about a year by one of the leading rhinologists of this city, receiving considerable benefit, but for the last two or three years she has had a rather profuse nasal discharge, thickened, and increasingly offensive in character, with obstruction to nasal respiration, loss of smell,

[1] Read before the Wayne County Medical Society, February 17, 1898.

nasal voice, and the other usual symptoms which we find in an aggravated case of chronic rhinitis. Lately she had suffered from headache, which was increasing in severity, and was also troubled with weeping of the left eye. She had been using an atomizer for some years without getting any other relief than the keeping of the nose approximately clean.

On making anterior and posterior rhinoscopic examination I found considerable hypertrophy of the turbinates of the left side, especially of inferior turbinal.

I suggested an operation for the removal of the hypertrophied tissue of the lower turbinal, which was impinging on the floor of the nose. This was agreed upon, and on Saturday, January 15th, I operated at 3 P. M. in the usual way, cocainizing the parts thoroughly and making a practically painless operation.

Hemorrhage was not very profuse and was readily controlled at this time. The patient returned home, and soon after suffered from an attack of nervous sick headache, to which she was subject upon occasions of nervous strain.

As usual, the headache ended with an attack of retching, after which straining the hemorrhage started in afresh and rather profusely. I tried again to control it with styptics and plugging the naris with absorbent cotton, but did not succeed in thoroughly arresting the flow of blood, and, as the patient was getting very weak, with the kind assistance of Dr. Suttie, I tamponed through the posterior naris with a sponge tent, which instantly stopped the hemorrhage. I then ordered her to be liberally supplied with beef extract, for the double purpose of nourishment and to increase the arterial tension.

Sunday, the next day, she was doing nicely, but was very weak; there was no recurrence of the hemorrhage, but I did not think it advisable to remove the tampon as she was too weak to bear it.

Monday, January 17th, the patient was a little stronger, but owing to debility I could only remove a part of the tampon from the anterior naris.

The next two days I removed still more of the sponge anteriorly, in all about two thirds of it being removed up to this time, the patient still being too weak to bear much manipulation.

On Thursday morning, January 20th, I attempted to remove the remainder posteriorly, but found it so firmly fixed that it could not be dislodged except with extreme force under anæsthesia. I called in Dr. Chittick and anæsthetized the patient, when, with considerable difficulty, we removed the remainder of the sponge.

After the patient recovered from the anæsthetic I cleansed the nasal cavity thoroughly with hydrozone, one part to twelve parts of lukewarm water, and she returned home rejoicing, the turbinal wound being in good condition, healing nicely.

Next morning she came to my office for treatment and stated she had enjoyed perfect freedom in breathing through that nostril until about four o'clock in the morning, when, changing her posision in bed, that side became suddenly obstructed. After cleansing the nostril, which was seemingly full of an offensive discharge, I discovered this body, which was attached at the posterior end on the outer side of the inferior meatus, lying, as it were, in a groove or pocket.

The anterior or loose end of it was sharp like a spiculum of bone, and black in color; it was freely movable about its long axis, so that you could pass a cotton holder around it and lift it from its bed. After cocainizing, I grasped it with a dressing forceps and, giving it a twist, removed it. I then thoroughly cleansed and disinfected the cavity with the hydrozone solution, which removed the odor and rendered the cavity wholesome.

The next day the two smaller pieces were removed while cleansing and treating the nose. They were loose and seemed as though they had just scaled off from the bed where the larger piece had lain.

The spraying of the nasal cavity with hydrozone, followed by the use of glycozone, constituted the treatment for the next four days, by which time the offensive odor had entirely disappeared, and the parts had assumed a healthy condition.

This concretion formed on the outer side of the inferior meatus, and as it grew larger it obstructed the flow of tears through the naso-lachrymal canal, as evidenced by the overflow of tears from the left eye, which condition ceased immediately after removal of the rhinolith.

The secondary hemorrhage was evidently due to a relaxation of the pressure on the vessels of the turbinate, owing to the calculus being disturbed in its position when the patient was retching.

As to the exciting cause of the formation in the case of this young lady, I could get only a negative history, there being no recollection of any foreign object having been put up the nose in her childhood. Being desirous of ascertaining, if possible, what served as a nucleus, and at the same time of finding out the composition of the formation, I cut it in two.

Microscopical examination reveals that it is composed of amorphous phosphates, undoubtedly the phosphates of calcium and sodium, which came from the tears.

There has been a marked improvement in the young lady's condition since the removal of the rhinolith; overflowing of the tears in the left eye has ceased, nasal respiration has become perfect, her voice has lost the nasal twang, and her general health has improved rapidly, as indicated by the fact that she has gained four pounds in weight since the operation (four weeks ago), and is still improving.

Judging from frequent reports in current medical literature lysol is being extensively used by many of our well-known surgeons. The saponaceous character of its solution is very advantageous in many cases, rendering a special surgical soap unnecessary in preparation for operations. It is a non-toxic, antiseptic, soluble in water, and is especially used in gynæcology for intrauterine irrigation after currettage (Prof. Augustin H. Goelet, School of Clinical Medicine, New York), and is not caustic like carbolic acid, and preferred to it as well as to bichloride of mercury for vaginal douches in obstetrics (Dr. Mary H. McLean), and for cleaning lacerated wounds and contusions (Dr. E. O. Plumbe, *Railway Surgeon*, April, 1898). It is used in one-half per cent. to one per cent. solution in water. ("Notes on New Remedies.")

Report on Pneumonia.—Under this title G. Parker (*Bristol Medico-Chirurgical Journal*) says: Pneumonia is now recognized to be a process set up by many different bacteria, even when lobar in type, and the difficulties of treatment are increased by our inability to distinguish clinically its varieties and their causes. Thus J. W. Moore[1] recognizes, besides those forms due to the diplococcus and the bacillus of Friedländer, special types found in erysipelas, influenza, tuberculosis, and typhoid, as well as those due to actinomycosis, aspergilli, diphtheria, and, we may add, to the organisms of acute rheumatism and small-pox. Besides ordinary septic pneumonia complicating erysipelas, Moore has observed, in migratory pneumonia, patches of erysipelas on the skin, which changed their position as the area of consolidation in the lungs did. The exciting organism here seems to be a streptococcus; in influenzal pneumonia, besides Pfeiffer's bacillus, a similar growth has been often discovered. A true pneumonia, due to the tubercle bacillus, occurs in cases of acute phthisis in young persons, while in typhoid, besides the frequent occurrence of septic and diplococcal pneumonia, during the depression due to typhoid poison, we find some evidence of occasional pneumonias produced by Eberth's bacillus itself. Generally speaking, the coccus of Friedländer is less virulent than the diplococcus of Fränkel, and this is itself a delicate organism which soon dies out—so much so, indeed, that in pneumonias lasting beyond the normal time we nearly always find some other microbe, such as the streptococcus.

Dürck[2] finds that any of these germs may be present in actually healthy lungs, and that if blown down a tracheal tube they are incapable of causing the disease. If, however, dust be injected, or the animals be first kept warm and then immersed in a cold bath, lobar pneumonia frequently follows such an insufflation. Recent research, too, has shown the presence of the diplococcus, not only in the mouths of a few persons, but almost universally. In pneumonia, under favorable conditions, this organism not only multiplies in the lung cells—that is, outside the body cavity—but gains entrance to the blood and produces a true cepticæmia. Thus, Kohn[3] found it in the blood in nine cases out of thirty-two, and it is noticeable that seven of these were the only fatal ones of the series. On the whole, then, we see that various harmless microbes, when the body resistance is lowered, excite inflammation in the lungs, and even the diplococcus may produce a septicæmia. Thus, no hard-and-fast line can be drawn between "croupous" and "septic" pneumonia. Little reliance has hitherto been placed in the various forms of serum proposed for pneumonia; and this is not surprising if we consider (1) the difficulty of diagnosing the active agent in the disease; (2) the possible existence of a depressing cause, such as the toxin of typhoid, which keeps open the gate for fresh infection. Still, good results have been obtained in many cases. Washbourn[4] immunized a horse for nine months and obtained a fairly powerful serum, capable of neutralizing highly fatal doses of bacilli. Its protective power in early stages of the disease seems definite, but its bactericidal effects *in vitro* are uncertain, and its antitoxic ones unknown.

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[1] *British M. J.*, 1898, i., 14.
[2] *Deutsches Arch. f. klin. Med.*, 1896–7, liii., 368.
[3] *Deutsche med. Wohnschr.*, 1897, xxiii., 136: quoted in *Am. F. M. Sc.*, 1897, cxiv., 499.
[4] *British M. J.*, 1897, ii., 1849.

Medical Authorities Say:—"High temperature is dangerous, and the danger increases in geometric progression with the length of the pyrexial period. To keep the patient's temperature constantly below the danger level is to conserve his strength and to establish a more speedy convalescence. If such control of the temperature is possible without the refined cruelty of the cold bath, so much better for both patient and physician.

First.—"The cold bath reduces temperature for a limited period when continued for a sufficient length of time. Kryofine, even in small doses, reduces temperature promptly, gradually, markedly, and for a prolonged period.

Second.—"The proportion of relapses and the number of deaths are both actually increased under the use of cold water. With kryofine there are no such results.

Third.—"The determination of blood to the internal organs caused by the abstraction of heat may increase the tendency to hemorrhage. Kryofine has no such effects.

Fourth.—"When it comes to permitting a patient to rise from his bed and step into the tub, then we believe the enthusiasm of the bath advocate oversteps the limits of good sense. Nothing can possibly be gained by this expenditure of strength and its strain on a heart taxed by fever, exhaustion, and toxæmia. At all events, the moving of the body, be it active or passive, connected with the taking of a bath, is injurious. The administration of kryofine in no way disturbs the patient.

Fifth.—"The same thing, of course, holds true, to a still greater degree, in perforation of the bowels. In this condition kryofine cannot possibly have an injurious influence.

Sixth.—"The shock of sudden and complete immersion may or may not be harmful according to opinion, but the nervous awakening, if really a good thing, can hardly be looked upon without the thought that the nervous energy expended is unnecessarily great, and one wonders whether the same results for good could not be obtained by gentler measures. That they cannot remains to be proved. Kryofine does effect the good results and without objectionable features.

Seventh.—"This method does not shorten the attack, but probably prolongs it. Under the use of kryofine the duration can be modified only for the better.

Eighth.—"The excitement caused by the giving of the bath may do harm.

"It has such terrors for some patients, that I have known them to resist the inclination to sleep for fear they should be plunged into the bath while asleep. All these objections obviously do not apply to kryofine.

Ninth.—"Sometimes baths are followed by severe rheumatic ('rheumatoid') pains in the limbs, and often they seem to promote the occurrence of furunculosis. Neither can result from the use of kryofine, and the former when present are relieved.

Tenth.—"The bath is not advisable when a severe laryngeal affection develops, or otitis, or nephritis. Kryofine is of advantage in all these conditions, and has no deleterious action on the kidneys.

Eleventh.—"The bath produces cyanosis and chilliness in many cases. The depressing effect of the bath has been noticed by Liebermeister. Under the influence of kryofine arterial tension increases, dicrotism disappears. In therapeutic does (*i. e.*, modified to suit the individual) no ill effects whatever appear.

Twelfth.—"Especially in the case of aged persons, cold baths are contra-indicated. Kryofine acts favorably in patients of any age.

Thirteenth.—"The cold bath improves vascular tone, and the peripheral vessels are flushed by an excess of blood which cools the body by bringing hot blood to the surface and brings to the emunctory portions of the skin effete material for elimination. Kryofine has precisely the same effect.

Fourteenth.—"Bathing necessitates the attendance of several nurses. Only one nurse need be present when kryofine is used.

Fifteenth.—"Delirium and stupor occur often enough in the cases treated by Brandt's method. Kryofine has a marked hypnotic action, and each dose is followed by euphoria. Delirium, stupor, subsultus, are lessened or relieved.

Sixteenth.—"The cold bath treatment is essentially cruel, barbarous and dangerous, and its cruelty is not lessened to the individual because it has received the endorsement of many eminent men. Kryofine is pleasant to the patient, both in its administration and in its effects."

Getting Her Money's Worth.—Hospital experiences are generally supposed to be sad, but there is an occasional merry one, as the experience of Miss A. will prove. Bridget Rafferty had served the best years of her life as a cook, and now that she was "wearin' awa'" and an operation became necessary, she haughtily declined to go to a ward, but took one of the best rooms. The operation was successful, but the patient was allowed very little food. She evidently pondered over the situation, and the result of her reflections was manifested in a most frequent use of the electric bell at her bed. Miss A., a novice in her profession, would fly to her to be greeted with some trifling question or the remark, "I only wanted to know if you were there." Such frequent use of her bell caused the matron to remonstrate with Miss A., who received this unique explanation from the patient: "Well, you see, Miss, here I am paying thirty dollars a week; I'm not seeing anything, I'm not hearing anything, and, Miss, I'm not eating anything. So I just ring the bell to get my money's worth, and, anyways, I enjoy hearing it ring."

The Herf & Frerichs Chemical Co. manufacture sulphuric ether, conc., U. S. P. 1890, by an improved process which enables them to eliminate all those impurities usually found even in the better grades now on the market. These impurities, to a large extent, are derived from fusel oil and aldehyde contained in the alcohol from which the ether is made. The ether offered by Herf & Frerichs is, therefore, especially adapted for anæsthesia, since no secondary effects will be observed in its use, which are often caused by a small admixture of derivatives of fusel oil contained in the ordinary ether.

FRANK L. E. GAUSS.

It gives us pleasure to present Mr. Frank L. E. Gauss to our readers. He is the St. Louis manager of The Searle & Hearth Co., and ably represents them by his energy and honesty.

Mr. Gauss has grown up in the drug business. For twelve years he was connected with various Chicago wholesale houses, and left a responsible and lucrative position with Peter Van Schaack & Co. to accept the present position. He was one of the founders of the Jenner Medical College, and studied medicine for a time, devoting special attention to materia medica and therapeutics, in order to fit himself thoroughly for his present work.

We congratulate the Searle & Hearth Co. for being represented by so able a manager. Mr. Gauss may be found in Room 923 Century Building.

The annual meeting of the National Wholesale Druggists' Association, together with the Proprietary Association of America, at the Southern Hotel last week, was unusually successful and well attended. Men whose names are familiar to the profession everywhere as manufacturers and distributors of pharmaceuticals, chemicals and proprietaries were present. Among those in attendance were G. D. Searle, F. S. Hearth, Dr. Delaney, C. F. Weiler, Thos. G. Haley, Jr., J. K. Lilly, A. W. Lambert, Frank Ruf, Irving McKesson, K. Duncan Mellier, Fred B. Perry, T. B. Glazebrook, and many others not less prominent.

The various local drug houses report a good business, with a bright outlook for the coming year.

THE TRI-STATE MEDICAL JOURNAL AND PRACTITIONER.

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ORIGINAL ARTICLES.

ACCIDENTAL LESIONS OF THE AORTIC VALVE.[1]

(By this is meant Lesions directly due to Muscular Force.)

By J. C. SPOHN, M. D., of St. Louis.

VALVULAR lesions are so generally considered as results of inflammatory or atheromatous disease of the heart or aorta, that it may be questioned whether there are sufficient grounds for considering any lesion of the valves as accidental, and classifying them as such.

The accumulation of evidence, however, in my opinion, is sufficient to justify the conclusion that there are numerous lesions of this particular valve occurring in the absence of any known pathological condition, and the circumstance and manner of their occurrence in a certain per cent. of cases entitles them to be classed as accidental.

The paucity of literature on this part of the subject and the sparing treatment of it by standard authors, tends to lead to the conclusion that lesions of this character are, if at all, only among the rare possibilities, instead of being of sufficient frequency and importance to deserve distinct recognition and classification, as is herein claimed.

[1] Read before the St. Louis Academy of Medical and Surgical Sciences, November 1, 1898.

Flint, and also Da Costa, in considering aortic lesions, maintain that aortic disease, *i. e.*, lesions of the aortic valve, are extremely rare in early life as a result of disease, but incidentally note that it may be brought on by overwork or strain. Abundant evidence of the correctness of the latter part of this statement must have occurred to almost every one of long years of experience in this particular line.

Dr. W. Axford, in the *Medical Record*, 1888, reports two cases of this injury: one in a boy of fifteen, and the other sixteen years of age, both the result of violent exertion. Neither of them, up to the time of making a second report, four years later, had been able to perform heavy labor; the disability, with some regurgitation, still continued. Their subsequent history, however interesting it might be, is not recorded, that I know of.

Corvisart, who is credited as being the first to report this injury, quotes Dr. Peacock, who, he says, had collected seventeen cases of valvular lesions brought on by muscular exertion. But the remarkable part of this record is that he says of the valves involved, ten were aortic, four mitral, and three tricuspid. This does not accord with my own observation, nor is it sustained by the best authorities of the present day, and was possibly an error in diagnosis, as I have never seen a case in which the primary lesion occurred in any but the aortic valve as the result of muscular exertion, or strain, in an otherwise healthy heart. And upon a little reflection it becomes clear why this should be so. The blood on the venous side having passed the capillaries and on its way to the larger vessels, which admit of considerable dilatation, and during the most protracted muscular tension the backward pressure is upon the widely distributed smaller vessels and capillaries, while the forward pressure towards the heart is in the direction of its natural flow, and not against any valves of the heart. Whereas, on the arterial side, while the forward pressure is also in the direction of its natural flow, the backward pressure, however, is against the forcible contraction of the left ventricle during systole, and against the aortic valves during diastole. This valve stands guard as against the backward pressure and recoil of the entire current of arterial blood, and during violent and prolonged muscular exertion is put to its greatest tension, and it is then that it is liable to yield.

Whether this is due to a predisposition, or rather a naturally weak structure, as is the case occasionally in other fibrous tissue, especially that of the joints, is, of course, not known. When, however, the valve is already weakened by disease, it is liable to yield in any case if an unusual strain is put upon it.

Linemen, and those engaged in heavy manual labor, especially heavy lifting and athletics, are among the victims of this accident. Also, in rare instances, soprano singers, when engaged in prolonged and exhaustive feats on the higher notes, are liable to this lesion.

These lesions may vary from a mere strain or slight yielding to the complete rupture of a valve. And the immediate symptoms may also vary from a slight faintness and enervation to complete syncope and collapse.

The opportunities for post-mortems in recent and uncomplicated lesions of this kind are extremely rare. I have known but two such cases that proved fatal as the direct result, and soon after the accident. One survived five, and the other about twenty days. These, however, must be

regarded as exceptions to the general rule. Lesions of a lesser degree, however, and not affording opportunities for post-mortems until after other serious complications obscure the nature of the original cause, or that are so slight as to escape notice for the time being, are more frequent than is generally conceded.

When the condition is merely one of overstrain, with but a slight yielding of tissue, the vertigo and sense of prostration which are the immediate results are usually but temporary; and the symptoms at first, in a large majority of these cases, are attributed to other causes, the heart rarely receiving that careful and critical examination required to detect a slight and recent lesion. After some months, or it may be years, nervous and other disturbances, which almost invariably sooner or later develop, readily point to the heart as the seat of the trouble. Compensation, and possibly partial repair, may have taken place and existed for an indefinite period of time; but this equilibrium is sooner or later disturbed, and it may be not until then that the lesion is really recognized. This is the class of lesions so frequently met with, in which there is no history of specific, rheumatic or other disease, present or past, involving the heart. And unless the case is very closely traced back to the first symptoms, and the circumstances under which they occurred, the original cause of the trouble remains unknown.

If the lesion is considerable, however, it rarely escapes notice. At the onset, while the compensation by dilatation and hypertrophy may maintain comparative comfort to a quiet and uneventful life, it can never be sufficient to maintain a proper circulation during violent or exhaustive muscular exertion, and, in that case, the disability is permanent. This is equally true of aortic insufficiency as the result of disease. The ventricle may be considerably dilated. Yet the heart is poorly nourished and the hypertrophy never fully equal to the dilatation.

This may be in part accounted for by the fact that the coronaries receive their blood supply from the base of the aorta, and that during systole the outward movement of the valves closes the mouths of these vessels, which are again opened by the closure of the valves during diastole, thus receiving their blood supply and pressure from the recoil and backward pressure of the blood in the aorta when the valves are closed. Now, if the lesion of the valve and the regurgitation be considerable, the supply and blood pressure in the coronaries must be correspondingly reduced; and the heart which, in this condition, demands an increased supply to enable it to perform the extra labor imposed, receives, in fact, a diminished supply, and in consequence is badly nourished, yielding readily to dilatation; but the hypertrophy is rarely sufficient to constitute complete compensation, hence we find a disproportionate dilatation that must ultimately lead to that long train of symptoms so familiar to every one; and when this stage is once reached, only death can finally close the scene.

After what has been said, I scarcely deem it necessary to enter into detail as to the diagnosis of this particular form of lesion. Suffice it to say that the suddenness of its occurrence, without previous history of disease of the heart, or in case the valve has been weakened by disease, the immediate effect and symptoms are the same, varying only in proportion to the extent of the lesion, the effect of co-existing disease, and the susceptibility and condition of the patient.

In the more serious lesions, the symptoms, both physical and rational, are unmistakable. "The water-hammer pulse," the regurgitant murmur, and the peculiar disability of the patient, when grouped together, are so typical that it requires no special skill to diagnose the case. But it is the lesser lesions, especially if accompanied by great nervous disturbance (an important element in some cases), that oft require all the skill we can bring to bear, in order to differentiate and determine how much of the disturbed condition of the heart is due to the actual lesion (which may be detected by the diastolic regurgitant murmur over the region of the aortic valves), and how much is due to the abnormal nerve influence (enervation or innervation as the case may be), in order that we may have a proper basis for a probable prognosis and the correct management and treatment of the case. When, however, the amount of regurgitation, dilatation, hypertrophy, and the state of nutrition of the heart are compared and correctly estimated, we know to what extent compensation has taken place; and having eliminated the nervous element, we can make a very fair estimate as to the prognosis and the kind of life and treatment most conducive to a comfortable and prolonged existence.

DOES MISSOURI NEED A HOME FOR EPILEPTICS?

By GEORGE R. HIGHSMITH, M. D., of Carrollton, Mo.,
President of the Missouri State Medical Association.

THE problem of providing homes for epileptics has engaged the attention of the medical profession for many years. So far as I am able to ascertain, our distinguished neurologist, Dr. C. H. Hughes, of St. Louis, is the pioneer in this State in recommending separate provision for the care of this unfortunate class of the afflicted. In 1868, while superintendent of the Missouri Insane Asylum at Fulton, Dr. Hughes called attention to the large number of idiotic and feeble-minded persons, many of whom had been made so by epilepsy, and suggested the establishment of separate institutions for them. In Dr. Hughes' report for 1869 and 1870 he recommended separate State provision for epileptics in the following words:

"If suitable State provision were made for treating and caring for epileptic cases, we might get better results from treatment, and the disease would probably cease to be classed as always incurable. The stunning injuries often received by epileptics in their falls certainly congest the brain, and predispose to recurrence of the paroxysm.

"The peculiar characters of this disease—the precursory shriek, the

fall, the convulsive movements of the limbs, the glaring eyes and distorted features, the bleeding tongue, the frothing mouth and bitten lips, etc., that make up the hideous *tout-ensemble* of a patient in a paroxysm of epilepsy—render such cases unfit to be among certain classes of the insane, especially among timid melancholics.

"While the ludicrous vagaries of one insane person often arrest the attention of another, and while the apparent suffering and hideous aspect of a prostate epileptic may enlist the sympathy of some, by diverting attention from self and leading to forgetfulness of delusion, I believe that the presence of epileptics exercises, as a general rule, a baneful influence over the inmates of an insane asylum.

"If, in the association of the insane, insane epileptics unfavorably affect other cases with which they come in contact, this ought to be, alone, a sufficient reason for providing for this class of patients separate wards; but there is another and equally forcible reason for separating them—in the injury which results to themselves.

"There are enough epileptics, sane and insane, thrown upon the public charge in every State to justify such provision for them in separate wards or institutions. Entirely separate hospitals and homes with arrangements for suitable treatment and training, and with a view on the part of the State to prevent propagation and multiplication of epilepsy, would be best."

When I sent the title of my paper to the Committee on Scientific Communications, I had forgotten the very able paper of Dr. John Punton, read at Sedalia in 1895, entitled, "The Need of Special Provision for Epileptics." Again, in a paper read before this society last year on "Civic Duties and Responsibilities of the Physician to His Community, State and Nation," Dr. Punton says:

"There are at least 2000 helpless epileptics in Missouri who instinctively turn to us for sympathy and help. Modern medical science teaches us that the State insane asylum is no suitable place for the confinement of such patients. What is sadly needed is a home especially provided for their exclusive care. Many States of the Union have already made such provision, and Missouri can well afford to be as humane and philanthropic as other States."

With a view of obtaining some reliable data in reference to the number, age, mental condition, etc., of epileptics outside of public institutions, I sent a typewritten circular to a large number of physicians with whom I am acquainted. The most of them responded promptly. I also wrote to several superintendents of asylums and poor-houses, requesting information as to the number, mental condition, etc., of epileptic inmates. Nearly all of these responded promptly. From data obtained in this way I am of the opinion that Dr. Punton's estimate of about 2000 in the State is very nearly correct. Of these, about 500 are in insane asylums, 500 in poor-houses, and the remainder of about 1000 are distributed over the State and are taken care of by their families and friends.

In my letter to superintendents of asylums, I asked each one to give briefly his opinion as to the propriety of establishing a home for epileptics in this State. There was such unanimity of opinion on the subject that I quote the language of one as voicing substantially the opinion of all:

"There cannot, in my opinion, be any doubt about the urgent need of a colony for epileptics in our State. The hospitals and asylums for the insane are not suitable places for this class of insane; they are a burden to us, because their natural irritability renders them intolerant against the notions and whims of the other insane, and hence, at times, positively dangerous to the latter. The epileptics again are to be pitied on account of their having to commingle with the delusional insane while partially or totally lucid; this association with the insane must have a baneful effect upon the epileptics' mentality."

While colonies have been started in several States, Ohio and New York seem to have the only ones which have been in operation long enough for us to be able to make any practical deductions from their experience.

In Ohio, as far back as 1879, a bill for the establishment of a separate institution for their accommodation and treatment almost became a law, passing one branch of the legislature. Not, however, until 1890 was a law enacted providing for the establishment of a hospital for epileptics and epileptic insane. All epileptics resident in Ohio are eligible for admission to this institution, up to the measure of its capacity, each county being entitled to a number proportionate to its population. No discrimination is made on account of mental condition, age or sex.

After the bill passed the legislature, the governor appointed a commission to select a location. One hundred and twenty-five acres of land near Gallipolis were purchased by this commission, and plans and estimates for buildings made. The buildings were to occupy twenty-five acres of the ground, and were estimated to accommodate 1000 patients, leaving one hundred acres for cultivation. (One hundred and twenty-one acres adjoining have since been purchased.)

Dr. H. C. Rutter, manager of the Ohio Epileptic Hospital, in a paper read before the National Conference of Charities and Corrections, at their meeting in Toronto, in 1897, says:

"The first patients were received November 30, 1893, at which time provisions had been made for two hundred and fifty males. September 1, 1894, cottages for two hundred females were opened and immediately occupied. One year thereafter, two new cottages, with a capacity of seventy-six each, one for males and one for females, were opened. For the first few months the difficulties of management were so great, owing in part to the limited facilities for classification, as to be almost discouraging.

"Many of the patients came from alms-houses, many from the lower walks of life, and were uncouth in their manners and dress, filthy in their habits, and rude in their conversation. The improvement most noticed by visitors has been the wonderful change in their deportment. Association with others afflicted like themselves has taught them forbearance and patience. Politeness has taken the place of boorishness in those to whom politeness was an unknown quantity prior to their admission. The social influences of the institution are manifest, even in the most degraded, and especially in the younger patients.

"Perhaps the strongest argument in favor of the congregation of epileptics lies in the safety insured by their association. No sooner is the premonitory cry, which so often ushers in a seizure, heard than willing

hands fly to the sufferer's assistance. Everything is instantly dropped, so that no time may be lost in reaching him before he falls. Many times have I heard this cry and witnessed the rush of patients to reach their fellow in time to catch him and prevent injury from falling; and, as they usually walk together, serious accidents are very infrequent. To show how rarely such accidents occur, it is only necessary to state the fact that no serious accident has happened in Gallipolis for more than two years, during which time more than eight hundred patients have been treated.

"Among the most important means of treating epilepsy, regulation of the diet occupies the front rank. Many experiments have here been made in diet. Bills of fare have been made out, with varying quantities of different foods for each day of the week, and have been carefully compared with the number of attacks following."

"Perhaps one of the most important problems presented is that of employment. In a congregation of persons having such a divergence of tastes, habits, education, age, physical strength, and mental acquirements, the question of employment becomes a very intricate one. To meet it successfully, a great variety of occupations must be provided. Fortunately, the requirements of a large colonly are such as to furnish suitable employment for a great number of persons of different conditions.

"Much importance is attached to the regularity of habits encouraged by a residence in the hospital. Patients are expected to go to their meals at exact hours, to retire for the night and rise in the morning at the same hour, day by day, and to have all their other habits regulated with perfect exactitude.

"Epilepsy has ever been regarded by medical men as one of the least hopeful of diseases, so far as the expectation of complete recovery is concerned. Those who have had the largest experience rate the percentage of recoveries very low, while the great majority of physicians regard this disease as practically incurable. It is, therefore, with no little gratification that attention is called to the remarkable improvement in the large percentage of patients received at Gallipolis, and to the probable permanent recovery of a reasonable per cent. of those treated. Without going into details, there has been a reduction in the number of attacks by more than three hundred per cent., while in the severity the proportion has been relatively as great.

"At the close of the fiscal year ending November 15, 1896, fifteen patients were discharged as recovered.

"Patients are considered recovered after a residence of two years from the time of the last attack. These patients have been corresponded with since, and up to the present time have continued well, more than three years having passed with the majority of them without any return of the attacks. From present indications we expect to send out more than double that number at the close of the present year, next November.

"I cannot too strongly emphasize my convictions, based upon nearly four years' experience, of the efficacy of making separate State provision for the epileptics."

The Craig Colony for Epileptics is a magnificent charity. It consists of 1872 acres of land in Livingston county, New York. The work began in 1893, and the institution was opened in February, 1896. I copy from the third annual report of board of managers:

"Nearly every individual of the one hundred and forty-five patients admitted since the informal opening, February 1, 1896, has been markedly improved physically and has gained weight. Their epileptic seizures have diminished in frequency to a noteworthy degree, and in a few instances there has been a complete cessation of attacks for months at a time.

"One of the most striking changes has been in the expression of the patients. Almost every beneficiary loses his dull, apathetic look, born of idleness and neglect of years, when he enters upon the regular life of the colony and begins to understand and appreciate the opportunities for occupation, education, treatment, and general physical and mental development which it offers."

The medical superintendent in the same report says:

"Too much stress cannot be laid on the matter of the epileptic's diet. A copy of the dietary in use at the colony and the manner in which it is prepared is made a part of this report. It has given entire satisfaction, and has met, in every instance, the epileptic's needs. Not only has it seemed to correct pre-existing nutritional disorders that augmented the patient's disease of epilepsy, but has fully met all demands for body sustenance, having caused a gain in weight of ninety-five per cent. of all patients under treatment.

"Upon careful inquiry we are led to believe that the dietetic treatment of epilepsy is but little considered in county poor and alms-houses, where epileptics are not infrequently given such articles of food as corned beef, boiled cabbage, fried pork, and pickled pig's feet, the worst possible food an epileptic could have.

"Under the necessity of providing such a diet as we demand here, the great economic and scientific value of such a plant as the colony embraces is apparent. Cereals, fruits, breadstuffs, eggs, milk, and poultry can be produced on the premises in quantities ample for our needs.

"While medicine plays a most conspicuous and important part in the treatment of epilepsy, our belief is constantly growing that the moral treatment has a still broader field of usefulness and value.

"Too much stress cannot be laid on the importance of requiring every epileptic whose physical condition will admit of it to perform some kind of manual labor, and to do it systematically and continuously. Most of these people should be made to return, as far as possible, to a primitive condition of life, to a condition that eliminates the action of certain harmful stimuli incident to modern civilization that prompt nervous matter to abnormal action. It is a suggestive and hopeful fact that, coincident with the gradually increasing number of hours spent by patients in systematic and useful labor, there has been corresponding decrease in the number and severity of seizures; and such decrease is observed to be most marked when individual interest in the work performed is greatest.

"Work is ennobling and elevating. It fosters and cultivates feelings of independence, manhood and pride; and it should be our duty to instill these principles, as far as possible, into the beneficiaries of this helpful charity. All the good arising out of labor performed by the epileptic is for the epileptic. It is part value for greater value received.

"In seeking to establish a colony for the care and treatment of epileptics, the necessity for a school was regarded by Dr. Frederick Peterson as

of prime importance. Colony life for the young epileptic would fail to meet its fullest requirements were a school not provided.

"A few hours daily spent in the atmosphere of the school-room, where order is enforced, salutary discipline maintained, and constancy and continuity of action patiently and persistently taught, will, in time, instill into the beneficiaries of the system habits of industry and principles that can be applied to great advantage in the prosecution of the ordinary avocations of life.

"A great majority of the young people committed to our care have so long been afflicted that educational advantages have hitherto been denied them. The doors of ordinary institutions everywhere are closed to them.

"We recognize many epileptics as defective beings, too often representing a perverted and unfinished product of the human race, so to speak. We shall, therefore, but attempt to supply him with what nature has denied him; but it will be our constant and earnest endeavor to teach him to cultivate, to value, and to utilize to the greatest possible degree, both for his individual good and for the good of the universal social order of which he is, in a measure, an integral part, the talents that nature gave him, and that a beneficent environment served to develop and educate within him. We will endeavor to educate him simply—to teach him to write, that he may communicate with his friends; to read, that he may enjoy his hours of rest from manual toil with some wholesome book; and to perform such arithmetical problems as will aid him whenever the exercise of mental power is called for."

The medical superintendent closes his report for the first year of active operation of the colony in these words:

"As we proceed, it is well to remember that 'beyond the Alps there is an Italy;' and that out of and beyond the difficulties and perplexities that loom up on every side to embarrass and annoy, there is slowly rising a noble charity, full of honor for those who gave it life, and full of hope for the patient sufferer who knocks at its door."

I cannot refrain from making a short extract from the medical superintendent's report for the next year, the second year after the opening:

"Nearly all patients show marked physical improvement, two hundred cases showing an aggregate gain in weight of five hundred pounds.

"The foundation of the colony is securely laid; the policy of an enlarged institution is being crystallized; the feasibility and economy of the colonization of epileptics demonstrated beyond question. It requires no fine sense of reasoning to understand that it is a matter of economy to take dependent epileptics from county houses, where special provisions for their care and treatment cannot be made, and place them in the colony, where special provision for their care and treatment has been made, and where they may live as largely self-supporting agents and not remain complete burdens to the taxpayers of the State.

"This is a cold argument for economy's sake, freed entirely from all the considerations that should weigh heavily in the scale of common humanity in seeking to extend colony provision for this helpless class."

The cost per capita for maintenance, in both the Ohio Hospital and Craig Colony, is less than $125.00; which, reduced by the profits of nearly sixty per cent. after the first year, brings it down to about $50.00 a year

per capita. Our insane patients cost us, at the asylum, $130.00; which, taking into consideration incidentals, sometimes runs it up to $150.00.

Gentlemen, inasmuch as the legislature meets during the coming winter, I would suggest that a committee might be appointed by this association to bring the matter up. The assembly is likely to be composed largely of Missourians, who will require an ocular demonstration; in other words, they will have to be convinced of the need, cheapness, etc., of the movement. Literature on the subject would have to be presented, and arguments made before committees. I am satisfied that the subject can be presented in such a way that a bill establishing a colony or home for epileptics can be passed. I do not see any objection to making a combined institution for epileptics and the feeble-minded of the State.

Our insane asylums are now crowded, and a home or colony such as is contemplated by this paper would so deplete the asylums and poorhouses as to defer the building of another asylum indefinitely.

Since sending this article to the typewriter I have received a letter from the superintendent of one of our asylums, which differs in some material points from the others. In order to do justice to the subject, I insert it at this place:

"In regard to establishing a home for epileptics, I do not consider that it would be practicable. The management for the insane is as applicable for epileptics as it is for any other form of insanity. Among epileptics we find cases running from mild epileptoid to the most violent case of suicidal melancholia and homicidal mania. In all asylums which have run any length of time, we have enough of such cases to use separate wards for this class of patients, and I would recommend this. As a rule, they are quarrelsome, and, with the exception of the violent homicidal cases, get along better with each other than they would with the other insane. In their wards they are very sympathetic with friends afflicted as they are. They are very good in assisting to care for their friends when attacked with convulsions.

"As a rule, psychologists do not claim that epilepsy is curable, and the longer one is afflicted with these periodical convulsions, the more clouded his mind becomes. The larger number of cases result in dementia if death does not take place until late in life. The treatment that is most effectual in alleviating the convulsions at the same time produces a greater mental aberration and clouded mind.

"While I do not believe Missouri needs a special home for epileptics, I do believe our legislature should build a home for feeble-minded children. In this way they would relieve the parents of a great burden in caring for them, and at the same time be of very material benefit to some cases, who might be instructed in a home of the kind to be self-sustaining, where, otherwise, they would be a constant care, ultimately filling up asylums and charity homes."

Dr. Lloyd Elected.—Dr. Henry Lloyd has just been elected coroner of St. Louis. We predict that he will give entire satisfaction.

THE PELVIC FASCIA.

By BYRON ROBINSON, B. S., M. D., of Chicago, Illinois.

THE pelvic fascia, as it is taught to the medical student, is a complicated process. Some years ago I made a special study of this membrane, and again more extensive investigations. I have renamed several parts. Fascia should be named according to the muscle or structure with which it is intimately associated. It is not generally known that the fascia of the pelvis is quite an independent structure, and not merely a continuation of the iliac or transversalis fasciæ. The fascia of the pelvis begins exactly at the ileo-pectineal line, or brim of the pelvis. It lines the whole pelvis, being perforated by three apertures, viz.: rectum, vagina, and urethra.

The obturator fascia, superior and inferior, should first be considered. It is divided into superior and inferior by the white line, which is a remnant of the anterior and true ligaments of the bladder. The white line extends from the posterior surface of the pubis to the ischial spine. It results from a thickening of the levator and fascia superior. The white line not only divides the obturator fascia into a superior and inferior portion, but serves as the origin for the levator ani muscle. The obturator fascia lines the internal surface of the obturator muscle. Its superior portion (above the white line) is in relation with the obturator nerve and vessels. The inferior portion (below the white line) is in relation with Alcock's canal, which transmits the pudic vessels and nerves.

The fascia covering the levator ani muscle on its superior surface we call the levator ani fascia superior (originally called recto-vesical fascia by Tyrell, and recto-vesical aponeurosis by Carcassone). The fascia applied to the levator ani muscle on its inferior surface we call the levator ani fascia inferior (others call it ischio-rectal or anal). We apply the same name to the fascia of the ischio-coccygeal muscle, as it is but a continuation of the levator ani muscle.

The fascia covering the pyraformis muscle is the pyraformis fascia. The fascia lining the anterior surface of the sacrum is the sacral fascia. We thus have definite names to the fasciæ of the pelvis which need not be confounded, as the names of the fascia are those of the structures with which it is most intimately associated, especially its muscles.

More attention will be paid to the levator ani fascia, superior and inferior (pelvic fascia), as on it depends the integrity of the pelvic floor. The levator ani does not sustain the pelvic viscera. It is performed by the fascia.

The fascia of the pelvis thus consists of (*a*) obturator superior, (*b*) obturator inferior, (*c*) levator ani superior, (*d*) levator ani inferior, (*e*) pyraformis, and (*f*) sacral.

THE OCCIPITO-ILIAC-POSTERIOR POSITIONS.[1]

By J. J. CONNER, M. D., of Pana, Illinois,

Secretary of the Pana Board of Pension Examining Surgeons; Member of the Illinois State Medical Society; Member of the American Medical Association; Surgeon for the Springside Coal Mining Company, Etc.

UPON being called to a case of labor if we find the occiput occupying one or the other of the posterior positions, we are necessarily more or less exercised in our minds as to the safe termination of the same to both mother and child. If the occiput rotates to the front in a normal pelvis, and there are fairly good pains, we expect a safe delivery to both; whereas, if the occiput should rotate into the hollow of the sacrum, the outcome is extremely problematical. I know of no class of cases in obstetric surgery capable of causing more worry to the conscientious and well-informed physician than the occipito-posterior positions.

Professor Pancoast says, in the "American System of Obstetrics":

"If I were to be asked what one obstetrical difficulty, in my experience, had caused most maternal and fœtal deaths, what one had caused most maternal and fœtal accidents not necessarily fatal—accidents, however, often making the rest of life worthless, or, still worse than merely worthless, a tragedy—I think I would say: 'Occipito-posterior positions where the occiput had rotated into the hollow of the sacrum, and which had been *improperly treated*.'

"A glance at the pelvic cavity will show that in *occipito-anterior* positions the occiput has but comparatively a very short distance to traverse from the superior to the inferior strait before it escapes from the pelvic cavity. Thus, directly in front, the depth of the pelvic cavity is only one and a half inches; and even the greatest depth at the sides is only three and a half inches. How great is the difference between either of these distances and that which the occiput is compelled to pass over when it has rotated into the hollow of the sacrum? The depth of the bony pelvis, from the promontory of the sacrum to the point of the receded coccyx, is five inches, and if we add five inches more to these five inches, as the measure of the distended perineum, we find that the distance which the occiput has to travel from the promontory of the sacrum to the anterior edge of the distended perineum is ten inches, more or less. The length of the back of the child's neck is one and a half inches; and this is quite sufficient in anterior positions, after rotation has taken place, to reach from the superior to the inferior strait; so that in occipito-anterior positions the body of the child remains in the cavity of the uterus, distending it, and the shoulders are at the superior strait until the head is almost or quite expelled.

[1] A paper read by invitation at the Twenty-fourth Annual Meeting of the District Medical Society, held in Pana, Illinois, April 26, 1898.

In other words, in occipito-anterior positions, in consequence of these conditions, the cavity of the uterus is distended, and the walls of the organ are capable of exerting their maximum expelling force until the head—the great difficulty of labor—is born. After the head has escaped from the vulva, the shoulders descend into the pelvis, and the cavity of the uterus becomes more and more empty, its expelling powers, consequently, correspondingly more and more feeble; but here the loss of power is of no consequence, since the large and hard head in its passage, under the influence of the maximum forces of labor, has so stretched the perineum and all the external soft parts that they offer little or no resistance to the subsequent escape of the rest of the body.

"Should, however, the occiput rotate into the hollow of the sacrum instead of to the pubis, all of these favoring circumstances are lost. The distance the occiput has to traverse from the promontory of the sacrum to the edge of the distended soft parts is, as we have just seen, ten inches; but the length of the back of the child's neck is one and a half inches—less than one-sixth of the whole distance to be passed. Hence, before the occiput can reach the anterior edge of the perineum and be born, the shoulders and whole body of the child must be jammed down into the cavity of the pelvis until, finally, the pelvis becomes impacted with the fœtal mass. But the whole length of the uncompressed fœtal ellipse is only eleven inches; hence, before the occiput can escape, the whole of the eleven inches of the fœtal ellipse must be packed into the cavity of the pelvis. This necessarily implies that the cavity of the uterus in these cases becomes practically empty, and, therefore, the uterine expelling force is practically lost—practically lost long before the delivery of the head is possible; lost, too, under conditions where the maximum expelling powers would be most desirable if they could be brought to bear. We have, then, in these cases, the obstruction and difficulty increasing, while the powers diminish, until long before the head is delivered; the uterine powers have been lost completely, and the impacted pelvis can be *naturally* emptied of the obstructing mass *only* by the bearing-down, voluntary efforts of the unfortunate mother. Is it to be wondered at that, with such a combination of adverse conditions, posterior rotation of the occiput should, at times, furnish some of the gravest and saddest cases in obstetrics?

"This explanation enables us to understand how, sometimes, in these cases, delivery with the forceps is simply impossible, and why, when this instrument is injudiciously used, it becomes such a potent cause of death both to mother and child."

In the *diagnosis* of these cases I rely on, *first*, a careful external examination of the mother; *second*, the location of the fœtal heart sounds; *third*, a digital examination per vaginam of the presenting part.

1. I believe it very easy in a great many cases to make a diagnosis of the position merely by a careful external examination of the mother's belly. Of course, to do this it requires a patient with thin abdominal walls without much tenderness of the parts, and a quiet, patient woman. It requires a comparatively delicate touch and a gentle, thorough painstaking examination. The patient should be on the edge of a smooth mattress, with the lower limbs extending well down out of the way. The examiner should stand on the side of his patient with his back toward her

head. With a few gentle movements of the hand over the patient's belly he then firmly applies the tips of the moderately spread fingers to both lower inguinal regions and endeavors to insinuate them under and below the parts felt beneath the surface. He should maintain some pressure as he *drags* his hands upward, carefully examining every projection and depression as he approaches the top of the rounded mass. In this way one can map out the limbs, head, and breech of the child.

2. The fœtal heart sounds are a positive aid in the differential diagnosis of the position of the presenting part. One must not confound the uterine souffle with the fœtal sounds. The uterine souffle is a low, blowing murmur, and is heard synchronously with the mother's pulse and heart sounds. The sound produced by the fœtal heart is a short, soft and rather sharp sound, simulating that produced by a large-sized watch heard while under a pillow. If the fœtal heart is plainly heard in the right inguinal region, fairly low down and considerably to the right of the linea alba, and at the same time a hard, globular mass is felt in the left inguinal region answering all the requirements as to the size and shape of the head, you may feel well assured that the position is that of right occipito-posterior. If the fœtal heart sounds sink lower down into the pelvis, and at the same time approach more and more the linea alba, the occiput is rotating toward the pubis, and you may rest easy in your mind, as the labor will terminate as occipito-right-anterior. I cannot expect this society to listen to the differential positions as may be pointed out by the location of the fœtal heart sounds, as you can do that for yourselves, but will hasten on.

3. The diagnosis of the position of the presentation by the digital examination per vaginam you are all so familiar with as to preclude me from making a *résumé* of the classical directions from the standard textbooks on the subject.

Whereas, the danger to both mother and child are fully recognized in these positions, the *causes* of the same are not agreed to by any two authors. The fact is that every case is a law unto itself, and no one cause will explain its occurrence. There may be but one or many reasons to account for a single case. Some of the causes given are the following: *First*, obliquity of the uterus; *second*, deformity of the pelvis; *third*, deformity of the fœtus; *fourth*, an impacted rectum; *fifth*, a lacerated perineum; *sixth*, feeble uterine contractions; *seventh*, non-flexion of the head. I believe I have had cases exemplifying all of these causes, as will be detailed in some cases herewith to be reported.

I have not the time to discuss these causes, but will proceed to the more important matter of *treatment*. The question confronting us in these cases, and which we are often compelled to decide quickly, is whether to do or not to do—whether to do something or nothing. If we should see the case early, we are cautioned by all authors and our own experience to do almost nothing—and particularly *not* to rupture the membranes. The patient should lie on the side to which the occiput has presented, and bowels and bladder emptied. She should be assured that her labor will be somewhat prolonged, so that she will not get out of patience and vainly wear herself out to no purpose.

Pancoast says: "Should assistance be decided upon, it must be recollected that it is not to be attempted, in ordinary cases, until the head has

reached the floor of the pelvis; in other words, until the head has reached that part of the pelvic cavity where rotation takes place naturally and spontaneously. Sometimes rotation can be secured by the finger alone placed on the side of the forehead. Usually, however, bipolar pressure is necessary; that is, one or two fingers can be placed on the side of the forehead and a lever inserted over the side of the occiput. Often the best method is to apply the *straight short* forceps to secure rotation, and then complete delivery by aid of this instrument. None of these manipulations are to be done rudely or quickly; on the contrary, they should be kept up for a long time. Gentleness, not violent force, is essential to the safe and proper management of these often most difficult and trying cases. The head is rather to be *coaxed* than compelled to rotate. Constantly, however, the forceps will be found necessary, if not to secure rotation, at least to relieve a woman exhausted by long effort, and a child in great peril from long pressure."

In the *Annual* of 1896 Tarnier says: "If occiput does not rotate forward and the head does not advance, attempt should be made to rotate it forward with the hand; this can often be accomplished. If occiput is to the right, the left hand is introduced and the head seized, the thumb being placed behind the ear. The head then rotated from right to left and from behind forward; hands retained in position, otherwise occiput will again turn backward. The right blade of forceps now introduced and entrusted to an assistant. By this means, when left hand is withdrawn, head is retained in place. Left blade then applied and blades locked."

"The occiput,[1] in spite of any or all of the assistance just recommended, sometimes goes into the hollow of the sacrum. I believe that in the great majority of the cases, when such posterior rotation takes place, *notwithstanding* all our efforts to prevent it, the case is really a sixth position—an occipito-sacral position; that the head early in the labor assumed an oblique position at the superior strait; that the body, however, did not participate in this movement, but was held tightly by the grasp of the uterine walls, with the back of the child's body looking directly to the spinal column of the mother; that the medical attendant diagnosed (he could not do otherwise) an *oblique* occipito-posterior position of the vertex; he has attempted to secure rotation, and has failed, not because his manipulations were not skillfully rendered, perhaps, but solely for the reason that the uterus grasped the body of the child so tightly the head could not even be forced to rotate. I believe that in all cases where a normal head fails to rotate on a normal perineum, the trouble is a sixth position. The occiput then sometimes, in spite of every effort to prevent it, goes into the hollow of the sacrum, and the result is, if the head be large or the soft parts rigid, often one of the most difficult cases in obstetric surgery. In these cases of posterior rotation, unless the child be small, the pelvis capacious, the soft parts relaxed, and the *voluntary powers* great, we need not expect the labor to terminate, spontaneously, safely to mother and child. An impacted head for only three or four hours may prove quite sufficient to cause sloughing to the maternal parturient surfaces, with all the subsequent horrors that such sloughing suggests, from puerperal septicæmia down. At the same time, the

[1] Pancoast.

cerebral centers of the child may undergo dangerous or fatal compression.

"My earnest advice, in all difficult cases of this kind, is not to hesitate or vascillate or delay, but promptly to furnish assistance. A pair of *short*, *straight* forceps should be applied *immediately*, and a firm but prudent attempt be made to *force* (the time for coaxing has past) a rotation of the occiput to the pubis. In doing this we transgress the rule not to force the child's head to rotate more than a quarter of a circle, for fear of dislocating the cervical vertebræ. But we are justified in this heroic procedure by the fact that the child's chances are greater, delivered even by this highly dangerous method, than if the case were not interfered with, while the mother is saved a most perilous labor. Should this attempt fail, then the delivery may be secured possibly by traction with the forceps, though the occiput remain in the sacrum. The forceps here must be used with the greatest care and prudence, and when skillfully employed may be sufficient to accomplish delivery; or, if delivery be secured by it, the pressure is often so great that the child is still-born; or, what is worse, survives as a paralytic idiot; or, still worse, attains maturity with a mental and physical organization more or less imperfect."

Professor Pancoast, in summing up these cases, says: "Should a *prudent* application of the forceps fail—and it constantly will fail—then the forceps must be abandoned. Then the forceps in any difficult case of labor must only be used as a conservative instrument. * * * When we abandon the forceps, however, we do not abandon for one moment our patient. We do not think of 'waiting and trusting to nature;' there can be no rest until labor is completed. * * * The next procedure is embryotomy; and this is not to be slowly thought of and still more slowly performed; but if it must be done, it must be done immediately." After summing up the arguments in favor of embryotomy, Pancoast says: "But suppose—as is by no means unlikely—the medical man, called in consultation, demurs, suggests delay, trusting 'a little longer to nature,' or says the operation is unjustifiable and unnecessary: what is to be done? I then advise that the dangers be stated to the patient and her friends, a free and candid opinion being given as to the necessity of an immediate operation. If they decide against the operation, instantly abandon the case. If you continue in it, you countenance a management that must have a disastrous termination, and you will have to bear your share of the odium sure to attach to the medical men who mismanage their cases to a fatal or unfortunate result."

My experience will not permit me to agree with the eminent professor, for reasons that I will make known in the report of a case to be detailed further on. (Case 15.)

[TO BE CONTINUED.]

Removal.—Dr. A. S. Barnes, Jr., of St. Louis, has removed his offices to the Vista Block, corner of Franklin and Grand avenues.

SYCOSIS.

By A. H. OHMANN-DUMESNIL, of St. Louis.

YCOSIS is a cutaneous trouble which has been looked upon by dermatologists as one of the most intractable inflammatory affections of the skin. It is far from infrequent in occurrence, and those affected with it are incessant in their complaints and persistent in their demands for efficient treatment. It is more or less disfiguring, and is often looked upon by the laity as syphilitic in origin, thus adding mortification to the pain naturally inherent to the disease. Its cure is often looked upon as hopeless by the one affected by it, from the fact that, after consulting a number of competent practitioners, it shows no improvement, and a fixed idea is formed that it cannot be eradicated. This idea is, unfortunately, but too often fostered by physicians who either have failed to recognize the true nature of the disease, or, having done so, are unacquainted with adequate means for its proper treatment. So that it immediately becomes apparent that a true conception of this dermatosis must be obtained, and after that a proper application of suitable remedies must be made. It may be a comparatively easy matter to recognize sycosis, but it is at times rather difficult to differentiate its varieties from mere observation; and, on this account, the untrained medical man should be guarded in formulating a prognosis in any given case.

Sycosis is known to the laity under the rather misleading name of "barber's itch." The Romans called it *mentagra*—the disease of the chin; and the older writers applied to it the name of *sycosis non parasitica*, to distinguish it from tricophytosis barbæ, to which the appellation of *sycosis parasitica* was applied. The name sycosis is derived from the Greek word *sukon*, a fig, from a fancied resemblance it bore to a fig which has been split open; which also led to the term *ficus*, used by early Latin writers. There are a number of other names which have been applied to this disease, but they are obsolete or archaic. It will also be found, in referring to old works on skin diseases, that the descriptions which are given are misleading in many instances, and the treatment outlined is very unsatisfactory. Modern investigation has done much to clear up the subject, so that to-day we stand upon a much more satisfactory basis in both respects.

Sycosis is essentially a pustular disease and is markedly inflammatory. It is characterized by an eruption of pin-head sized pustules which are at first on a level of the skin and, later on, become distinctly elevated and conical in shape, the base being circular. Each pustule is surrounded by a more or less inflammatory areola of a rather bright red color, the lesions itself being of a distinct yellow or yellowish-white tint. The areolæ give

the entire skin a red, angry appearance should any considerable area be involved. It is not unusual to find a very slight furfuraceous desquamation taking place at the site of the areola, more especially if there has been treatment of the trouble. If it has existed any length of time there will be found a certain amount of circumscribed infiltration at the base of each pustule, and the areola will then possess a more dusky hue. This is an important fact to bear in mind, as the same color is very apt to manifest itself in pustular acne and in pustular syphilis, for either of which sycosis might be taken by a careless observer. There is one condition, however, which will always enable one to make a positive diagnosis at a glance. Each pustule is centrally pierced by a hair, which is comparatively stout, and which can be easily extracted. It only occurs on the bearded face, never invading the scalp, although it may affect the eyebrows in some exceptional cases. It is for the reason that it only affects the beard that women are exempt from this disease.[1] Children are equally free from it. In ring-worm of the beard each pustule is also pierced by a hair, but there is such a marked difference that no mistake could be made. The differential diagnosis will be pointed later on in this article.

When the disease begins there are but comparatively few pustules. These, however, increase in number until the entire bearded face becomes involved. This spread occurs in a manner which is comparatively rapid, and is due to auto-inoculation, the pus being spread by the bursting of the pustules and its entrance into adjacent hair follicles. After the trouble has continued any considerable length of time the inflammatory condition acquires a certain degree of chronicity, and, as a natural consequence, the skin becomes infiltrated and thickened, ofttimes to a marked extent, so much so that it acquires a leathery degree of hardness and is painful under pressure. After the disease has existed for some time the pustules open spontaneously; and it is this very action which tends to its further spread to such parts as have not been previously affected. The emptying of the pustules leads to the formation of small crusts, which, in their turn, give way to new pustules; and the process will continue in this manner for an indefinite length of time unless some radical measures be adopted for its repression. Cases are occasionally met with in which the sycosis has existed for twenty-five or more years. The difficulties to be surmounted in such are very great; and yet they cannot be accounted as hopeless if proper means, coupled with a certain amount of patience, be employed.

In a fully developed case of some years' standing the pustules are closely aggregated, as shown in Figure 1. In addition to this, there may be observed the thickening of the skin of greater or less marked prominence, as evidenced by the pea-sized lesions, which occur more especially about the neck, where the integument is more loose, by reason of the greater amount of subcutaneous connective tissue in this region. In more recent cases this peculiarity is not observed. In this as in more recent cases the subjective symptoms consist in a sense of marked heat and burning, a certain amount of pain, and moderately marked itching. Whilst this latter symptom does not incommode the patient to any great degree, it is yet of more importance than might be supposed at first glance; for it is

[1] There is no record of a bearded woman ever having had sycosis.

of a sufficiently marked character to elicit scratching, and this action releases the pus, and by the motion of the fingers aids very materially in the dissemination of the infection by the transference of the pus to the unaffected hair follicles. It is usually in this manner that the trouble is

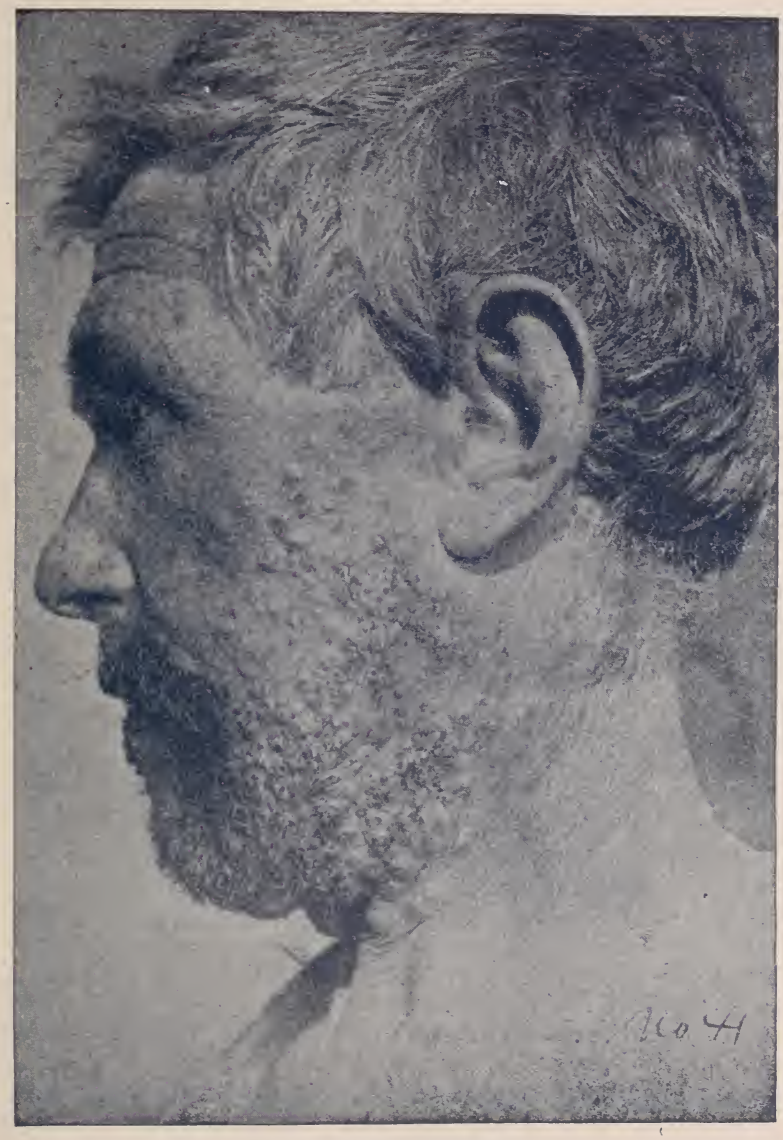


FIG. 1. Sycosis (Coccogenic).

transmitted to the eyebrows; for cases occur in which these hairs are affected without any contiguous lesions whatever. It is a common matter of observation to see a patient with sycosis unconsciously promenade his finger-tips over his face and in that manner spread the trouble. Whilst in the very act, he will deny the accusation that he does it; and he denies in good faith, so unconscious is this action on his part.

As has been stated above, about the only disease for which sycosis might be mistaken is ring-worm of the beard in its early stage. The subjective symptoms are very similar, except that in the latter the itching is more marked. When the disease is advanced, the skin has a number of small cutaneous abscesses disseminated throughout the affected area. There is, however, a great peculiarity to be noted in connection with the hair in both diseases. In sycosis, the hair is easily extracted, and produces little or no pain. In ring-worm, on the contrary, it is extracted with great difficulty, and the operation is exceedingly painful. On the other hand, if the hair in sycosis be grasped and pressed down, it elicits pain; in ring-worm, no such symptom occurs. The hair in sycosis is apparently normal, although upon its extraction the bulb is found to be atrophied and dis-

FIG. 2. Sycosis (Bacillogenic).

torted. In ring-worm the hair is dry and brittle, and the bulb is swollen to large proportions, thus accounting for the pain caused by extraction.

The causes of sycosis are two-fold, producing two varieties of the disease. There is, first of all, the coccogenic form, produced by a micrococcus which, according to Unna, is of the order Schizomycetes. This is very deep in its action and apt to become chronic. It is very difficult to eradicate as it induces quite a deep form of folliculitis. A good picture of this particular form of the disease is given in Figure 1. In this form the hair bulb is always attacked and the micrococci extend down along the hair shaft and root to the bottom of the root-sheath. Here they proliferate and easily extend, disseminating their influence to a greater degree, and are so encrypted that it is a most difficult matter to reach them with any agents

calculated to destroy them. It is on this account that it is very liable to relapses also, and that so much care and vigilance are necessary to arrive at any satisfactory result. In the other variety of sycosis we have the bacillogenic form. It is more superficial than the coccogenic, and is due to a specific bacillus, the bacillus sycosiferus fetidus, first described by Tommasoli. It derives its name from the fact that it forms greenish cultures on potatoes, the cultures having a very marked fetid odor. The process does not extend as far into the hair follicles, nor has it a tendency to spread to the extent that it does in the coccogenic form. An example of this variety is shown in Figure 2; and a study of this and comparison with that shown in Figure 1 will show the points of difference in the two. The bacillogenic form is more amenable to treatment, and it does not exhibit that tendency to relapses constantly taking place which is observed in the coccogenic variety. This is no doubt due to the fact that one is superficial and the other deep, and, as a matter of course, remedies can more easily reach the cause of the one than they can that of the other. It is not an unusual thing, however, to find the two forms mixed in the same case. This is the only circumstance that can account for the fact that, in some cases, there are certain patches of greater stubbornness than the rest of the eruption. A microscopic examination of the pus will easily demonstrate this to be a fact.

The manner in which infection occurs is a matter which is very difficult to explain. There is no doubt, whatever, that unclean towels, brushes, and razors, are the most prolific sources of the dissemination of sycosis from one individual to another. As these are usually encountered in barber shops having a rather inferior class of patronage, the name of "barber's itch" is one which seems singularly appropriate. Yet there are individuals affected who never entered a barber shop, so that this very plausible explanation cannot be invoked as an adequate one. And in cases where but one male who shaves is present in a residence, the possibility of having been mediately infected by another member of the household is also untenable. For the want of a better explanation it has been suggested that the air might act as a carrier of the infecting organisms, but this seems to be a rather far-fetched hypothesis.

Any treatment adopted, to be at all effective, must be thorough. The first thing to do is to thoroughly epilate the affected area. Not only must this be done, but a zone of apparently or really sound hair surrounding it for about a distance of a quarter inch from the involved area should also be thoroughly epilated in order to obtain as free a cutaneous surface as is possible. This process should be renewed every few days. It is quite tedious and requires much attention to be as thorough as it should be. Epilation not only removes a large number of organisms with the hair, but, in addition, it gives free vent to the contents of the follicle—chiefly pus—thus permitting a free escape of the micro-organisms, and a greater ease as well for the penetration of the remedies which are applied. The great disadvantage of epilation is the great length of time it requires, and the possibility of letting some hairs remain. So far as my experience goes, it is much preferable to the patient to shave daily. For the first few times it is painful and a rather bloody procedure. But it soon becomes rather more pleasant, and cases so treated recover more rapidly than under the no less pain-

ful procedure of epilation. Shaving is certainly more thorough, and many of the loose hairs come out as the razor passes over the face. The water used in making the lather should be antiseptic, and the soap recommended should be bichloride, thus aiding in every respect the microbicidal action of the remedies subsequently applied. An advantage of shaving over epilation is that as it must be kept up for a prolonged period of time a patient easily becomes accustomed to it, something which he never will do with epilation.

The local applications which have been recommended in the treatment of this affection are numerous. They cannot be regarded as of undoubted efficiency, for relapses are very prone to follow. Among the remedies which have been lauded is resorcin. This may be used in the form of a lotion, after the following formula:

℞ Resorcini resublimat ..... gr. lxviij
Spts. vini ..... ℥ ij
M. Sig.—Apply daily to each lesion.

Others prefer a sulphur ointment, and this has the advantage that it is not so difficult to apply. It may be made as follows:

℞ Sulphuris precipitat ..... ʒ j
Ung. aquæ rosæ ..... ℥ j
M. Sig.—Apply thoroughly twice a day.

Pyrogallol, ichthyol, chrysarobin, and other reducing agents have been employed with more or less success by various authors, and all have found failures follow the use of these remedies.

So far as my experience goes, the best application to make is pure liquid campho-phénique. This should be applied thoroughly, twice a day, to the affected part and a little beyond it. Whilst this may, apparently, increase the inflammatory symptoms for a few days, they will eventually subside in a few days; and, in the course of a reasonable length of time, the disease will have disappeared. This apparent cure, however, must not be relied upon by any means. There always remains the danger of a few parasites still lurking about, and these will form the focus of a new starting point from which the disease is apt to spread. It is for this reason that a prophylactic course of treatment should always follow that which has been curative. As an application of this character the following, applied twice daily, will be found valuable:

℞ Hydrarg. bichloridi ..... gr. j
Lanolini,
Ung. aquæ rosæ ..... aa ℥ ss
M.

This should prove sufficient, if employed for some time, to effect a complete cure, when conjoined to the other treatment already outlined.

Removal.—Dr. Norville Wallace Sharpe, of St. Louis, has removed his office to 3505 Franklin avenue.

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By DR. WARREN B. OUTTEN, of Saint Louis.

[CONTINUED FROM THE OCTOBER ISSUE.]

CHAPTER VIII.

The Brain Must be Good to Have Good Mind.——What's Best to Know.——The Difference Between the Common, Every-Day Fool and the Degenerate.——Wherein Intelligence Doth Differ from Common Sense.——The Story of a Mind Enfeebled and Helpless and Beset with Fear.——Man's Will is Man's Power, Aye, Joy, and the Very Essence of Life as a Healthy Being.——Woe to Him Whose Brain is Drained of Nervous Force. ——The Test of Mental Worth: The Turning-Point in the Conflict With Torment and Fear.——The Mind Wills or Wills Not, as Disease Compels.——Thus Saith Epictetus: "There is Nothing Good or Evil, Save in the Will."——Thus Does the Brain, in Nervous Exhaustion, Breed Besetting Ideas and Tyrannize Over Our Living Purpose. ——Fear is, Indeed, a Torment; Yea, a Tax that Conscience Pays to an Inherited Infirmity.——Here Nature and Wisdom Are at Outs.——Here the Worry of the Why and the Agony of the Wherefore, Coupled With Mystery, Make the Madman.——The Realist: Who, at Times, Defiles Even Mud, and Proves a Sort of Mental Tumble-Bug. ——Scrupulous Doubters, Under the Tyranny of the Fixed Idea in Religion.——Free-Will May Exist in the Healthiest Men; But With a Diseased Will, it Becomes a Freebooter.——Fixed Ideas in Neurasthenia Are the Most Cruel Tyrants of Life.—— The Timorous Doubter: Here Conscience is a Constant Deceiver.——The Counting Doubter: He Courts Endless Worry From Repetition.——The Story of Lawyer L——; a Prey to Irritative Repetition.——Some People Who Pass Their Lives Constantly Midst Throbs of Joy or Pangs of Terror.——Worry Climax Life's Crisis.——Aye, Distressing, Irresistible Besetments Bind the Soul in Steel-Like Bands of Woe.——For it is Evident to Those Who Familiarize Themselves With the Facts, Minds Apparently the Strongest May at Times Harbor the Craziest of Ideas.

VERILY, thus far I ween that's true—the brain must be good to have good mind. Yea, then, thou hast said good; now, what dost thou mean? Aye, is it not plain that good mind doth mean that it must possess desirable qualities, adapted to answer the end designed? Yea, thus I say: good mind promotes success—that which engenders welfare or happiness, that which must be serviceable in the general run of things, fit to accomplish a good purpose, excellent and admirable to such purposes as best needed, and which is not only commendable, but of real intrinsic value. This seemeth to me to be good mind; yea, mind which is not bad, which is not clouded, incorrupt by nature, not noxious to every element of welfare, inoffensive in intelligence, and not troublesome in its execution. Yea,'tis common sense that a badly-made brain cannot make good mind. Truly, crooked things must get crooked results. Yea, thus far is my thought plain, and mayhaps have uttered sense; but, by my troth! this theme doth beget in me serious ponder. Bah! 'tis a wieldy subject to some; not so with me, for I like not this study of degeneration; perchance 'tis lack of discipline and a wayward brain that grinds my soul. Truly, as I ponder, it seemeth to bulge into bigness, weariness, and menace. Aye, marry! how can it be otherwise? as it fills full the soul and

seemeth to become a goading thing, wherein no rest comes, as solution is never near. Truly, when any one dwelleth too much upon such besetting subjects, he must soon become sick of mind himself. Yea, pondered and deep investigation doth become infectious; for a mind's wear and tear soon begets converts, for it hath not power to resist a self-made hypnosis. Heavens! can it be otherwise, that when a subject is so filled with overmastering, irregular, and suggestive elements, that it must take hold of the soul, just as hypnotic suggestion, by a wearied and a strained attention? Yea, to me it is more than true; for thus do I find myself. Yea, so will others, if they but search for mental defects. They will only too soon lose due appreciation of the sweet, kind, and healthful face of things.

Yea, I defy thee, thou good, honest soul, if thou dost study mental infirmities, and relieve not thyself by studying mental health, thy mind will surely become a weak and sick thing. Yea, why not? forsooth, doth not thy surroundings ever influence thee? Yea, thou mayst fly to the ends of earth, yet still there bides with thee the firm, full force of surroundings. Gods! why man, thou art nothing but a creature fed upon suggestions! 'Tis the goodness of thy brain which makes them serve thee well or ruins thee. Truly, too, 'tis a moving truth, aye, sadly and strangely true, that oft our studies are self-punishing things. Heavens! thou canst not flee from it; for when thou dost become a fault-finder, a blemish-hunter, thou dost sooner or later grow within thee a mental vice. Yea, let thy study be profound and deep, I care not whether thou doest it in a scienced way, thou art in an infectious domain which makes thee grovel in the sad, mental blemishes of human mind to pass unnoticed the glorious virtues of a sane mind. Thus 'tis with me; for all men are judged by how they and others feel. Nay, then, have I not heard that deep students of mind's defect soon have some mental effect themselves? At least their habits makes them fall in love with disease and unnotice health. Truly, to me it seemeth that, perchance, this study is well fit for thy time-worn man, thy brain-trained savant; but 'tis bad for the young, the bright, hopeful, and joyous. Yea, let thy brained, trained, and function-stunted philosopher sear and waste his brain on the dark and grewsome lines of mind's disease, or mind's decay; but, heavens! spare the teeming and susceptible mind of the young. Yea, then, what's best for me to know, wherein can I obtain the best—that what gives satisfaction and not weariness; surely, it cannot be in subjects so deep and drear? Yea, my appetites, my passions, are living things, swaying the full force of my nature; their force must have exit, and not be bound down by crazed and deep subjects. As thus I mused, Para Blar and Theo Celsus approached.

"How now!" said Para Blar. "Why, Mens, if I read thy face aright, worry hath besieged thee. Tut, tut, tut, man! art thou thinking of stern and pressing subjects? Fie, fie, upon it, Mens! perchance thou art ashamed to say it, but is not thy thoughts of love? Well, maybe thou art thinking of war or death; for it, indeed, must be some weighty subject to set thy features in such serious ponder."

"Nay, sir," said I, "no such trinity of woes were in my thoughts; truly, I am neither wracked by thoughts of love; yea, think less of ramparts of doubtful glory; and—heavens be praised!—my thoughts are not burdened or saddened concerning death. But, sir, since thou hast asked, I will answer thee. I but thought as to what's best for man to know."

"Truly," said Para Blar, "thy thought hath taken a strange and wide range. To me it seemeth that 'tis deeply true that few, few indeed, are the men who give thy thought a passing notice. Nay, perchance, I do but err; but thus think I: that amidst millions and millions of human beings, thy thought hath no deep consider. Many study only to gorge the mind, and ne'er think what's best for them to know. 'Tis true, indeed, man's broadest and almost undisputed freedom doth live in thought; here in this realm of thought lines are not drawn as to what's best for man to know. Wondrous, indeed, would be this big and pondrous world, if men knew what's best for them to know. Yea, verily, brilliant, indeed, would be the mental accomplishments, if minds were freed from useless study; for 'tis truth itself that man's most weakening enemy is his vain waste of brain o'er useless subjects. Heavens! could I truly know what is best for me to know, then, perchance, worth, ability, and happiness were mine. Yea, what's best to know each brain decides; and thus it is that the very broadness of man's study doth rob his mind of its true weal-working worth. Yea, the breadth of study with man oft scatters the scores of life into a desert of dry, arid worthlessness. Gods! 'tis true that it is not left to any mite of a man to study a universe."

"The best," said Theo Celsus, "hath no peer. Yea, the best is king; aye, too, the conqueror of conquerors; a mundane deity. What's best for men to know, no man knoweth. That knowledge which hurts, that knowledge which makes thy soul haggard and runs to pain, we oft do find out; but much of man's knowledge is fulsome misfortune, which neither life nor death seem able to solve. 'Tis gospel truth, that too much study, yea, self-study, hath more of harm in it than benefit. Yea, he that ponders self soon finds it a nagging, misleading subject. Nay, can it be known that when any man, from any cause, must consider self? Yea, naught else but self meets inevitably the bleakest study in nature. Gods! if pain rack thee, then thy study is, indeed, the study of misery, wretchedness, distress, and woe. Happy, indeed, is that mortal who hath no need to find out what he hath within; for God-willed, God-bubbling, spontaneous function is the rhythm of life, the sweet music of unimpeded use. Yea, all ages hath taught all men that all that any man can know is that nothing can be truly known. True, fatedly true, that man is not permitted to know all things. Knowledge, to be of virtue, must possess real elements of worth; for 'tis not quantity which makes it great, for it must be of best quality. Well, let knowledge be power; still oft it is that too much self-knowledge becometh a mind's weakness. Nay, if thou hast not already found out, thou wilst surely know that the first step in self-knowledge is self-distrust; continue thy self-study, then self-delusion seizes thee; yea, let it grow in fixed wantonness, it then leadeth to madness. Truly, it seemeth that the happiness of existence is best where no fixed, tense thought of self hath entered a man's brain. He who knows nothing never doubts; for, turtle-like, in his shell of ignorance hath hedged him; but 'tis proven that he who knows most of self, knoweth little else than doubt. The ponderer of heaven and hell, the student of cause of mind and soul, are self-made martyrs of doubt, ego-fiends, agnostic martyrs. Yea, Godblessed and happy is the man that bides with a soul of blind acceptance; who is made with an inborn and an abiding faith. The storied scenes amidst this world's in-

tellectual life paints in truthful colors its many actors; and it hath an immutable law that when a mind only ponders the unknown and unponderable, the brain hath ruined and wasted itself upon the unsolutioned. Here, perchance, comparison hath ready and kind comprehension in it. Here, I pray thee, take, for instance, this hopeful stripling: place him side by side with this sad-eyed, seared, and wrinkled philosopher; thou needst not study deeply, for thou canst tell which of the twain which hath happiness, and which most truly lives; aye, lives the life of a normal, human being. Nay, 'tis easily shown that this stripling is but a snapping mass of zest and function, responsive to the eager wants of his ever-ready working organs. Nay, 'tis easily seen that the philosopher is but a brained, trained being, but truly a narrowed niggard of function—he now leaves the best part of this world untouched.

"While he hath become an inveterate student of self, thou canst easily see that the stripling hath no deep and fixed idea and thought of self, except as his living, wanting nature dictates. He not as the philosopher argues o'er strained and impenetrable questions. Nay, indeed, no thought worries him to the detriment of his ever-exacting appetite; truly, he careth not as to why, how, or by whom he was made; that he is alive is sufficient. More than this, questious bother cometh not. Odzooks! little doth he think of the mind or soul; he unconscious glows to every fulsome, winsome prod of nature. Doubt hath not dried and seared his soul, since he doth truly live, like the violet, an obedient slave to the stimulus of every Godsome touch of nature. Verily, I say to thee, Mens: Live outside of thyself, study the glorious face of ever-bright nature, whose ever-living changes bring reposing thought. Know thyself to keep thee from trouble. And if thou wouldst keep young, scan not God's purpose by self-study; for such knowledge doth not always hold to itself the truest wisdom. Yea, live for others, and thus thou wilt broaden the function of thine own life; for in the hallowed glow of unselfishness charity will bless and sweeten thy soul."

While Theo Celsus was speaking, Veggo Go had, in the meantime, come up and stood intently listening. When Theo Celsus ceased, a broad and deepening smile spread o'er Veggo Go's face; then he with glee clapped his hands. "Gods! Gods!" said Veggo Go. "Thy errant words were strongly said. Oh, thou art a wordy juggler! Nay, thy say is as plain as words can make them; for thou hast made the fool the wise man; and the studious-wise a self-pained fool. Thus, he that knoweth nothing doth live the happiest man. Too much wisdom doth fetch misery. Yea, Theo Celsus, thou hast made the fool the world's wise man. Yea, let me add to thy say; for 'tis said that without knowledge there is no sin: so thy fool is great. Yea, happy in his ignorance, and sinless from his lack of knowledge. So, he that knoweth nothing is happy and sinless. Couldst thou want in man greater virtue and happiness? Lord! Lord! wonder here doth seize me, to think what a fool was he who invented the degenerate, when thy rank and old-fashion fool lives and bides in glory here and everywhere. Verily, to me 'tis true, that thy degenerate is a fool, perchance, a sad fool, though different shaped from thy every-day fool. But, I pray thee, Theo Celsus, answer thou me this: what dost thou call a fool?"

"Fie, fie, upon it, man!" said Theo Celsus; "thou shouldst know him, since 'tis fated that thou must bide with and keep him company."

"Nay, nay, upon my honor," said Vegge Go, "I beg thy pardon, for I will e'en now forswear thy company if thou dost insist; for when alone, then must I associate with rare wisdom."

"What?" said Theo Celsus. "By heavens! thy meaning is caught; truly, Vegge Go, that's not bad for thee, and for thy well-timed point I will tell thee what I call a fool. A fool is a person that hath no reason. Yea, indeed, he is but void of the common powers of understanding. He acts in thoughtlessness, ever in folly; he useth not reason nor understanding. Yea, what's more, this fool is a dullard; for he ne'er knoweth wisdom."

"So, so; I thank thee," said Vegge Go. "'Tis well and true, as thou hast said; but to me it doth appear that this Cohort has so made thy degenerate."

"Pshaw! thou sayest nonsense," said Theo Celsus. "By my faith! thou art deeply mistaken; for the degenerate is not void of reason. Yea, he is ever a rare and wondrous reasoner. Aye, truly, he hath firm powers of understanding; but, forsooth, a fulsome and wayward fancy doth lead him into error. Now, 'tis true that thy fool's error doth plainly come from a lack of brain. 'Tis but a juggle of words; for thy degenerate mayhaps be a brainy fool; but none can doubt that the common everyday fool is a brainless one."

"Go to, my wordy scrapper," said Vegge Go. "Thy say hath, indeed, come to truth; for, as thou and others of this Cohort hath said that the degenerate is o'erwise in his own conceit, nay, is not the fool just as truly the same? Then, 'tis true thou canst not convince the degenerate of his lack of sense, neither canst thou convince a fool."

"Marry! but thou hast said the truth," continued Theo Celsus. "Still, it stands a fact that the degenerate may be talented in many ways; but thy fool is never so. Fools are, indeed, lazy dullards, and ne'er strive by honest work to fill their empty brains; whilst the degenerate is oft industry's own. Yea, and oft doth he labor almost insanely. But, gracious goodness! the fool is but a sleepy, slothful ass, unbacked by reason enough to study—aye, still more, he ne'er could understand, e'en though study should move him. Thy fool may strain, to only well into an empty brain; for his brain is like a sieve, as all things pass through unimpeded, to ne'er stain its strands."

"Yea," said Vegge Go, "let thy rapid thoughts cool; for still thou dost, indeed, argue mine own same way; for it yet remains that both are fools: for thus I argue truly from what thou and this Cohort hath said. Nay, is it not true that he who is born a fool is never cured? So just the same with a degenerate. Yea, then, here cometh a difference: the degenerate is a new-made creature of not many years old; but the fool hath ever been—yea, since the round rolling world turned its orb. Nay, then, again, heard I not thee say that the degenerate lives and thrives in big cities, worn-out by civilization? Nay, here he doth not o'ertop the fool; for this fool lives broadly, since thou canst find him in any country under the sun; mayhap, if thou lookest far enough, he might bide in a twinkling star. Now, here purls truth: thy old-fashioned fool is now and then right, as chance

makes him; thy degenerate, never; for fancy ever misleads his crooked brain.

"Some fools think and know that other fools are smarter than they themselves, but not this lordly degenerate; for he but thinks that all the world are fools, whilst he alone is right. Anon, fools know fools from wise men; but this degenerate ne'er knows his kind, nor the fool, nor the wise man. The fool lives in folly, and, true to himself, like a fool he glories in it; but a degenerate may flow in seeming wisdom and still be a braying ass in folly. Yea, this degenerate is a what-can't-be, a wise-crazy-man. Aye, here we stir consideration; for 'tis true that no fool is so great a fool as to not admire a greater fool than he; whilst thy degenerate ne'er hath admiration for aught except his own self. So, thus I trudge: the fool is a plain, unmistakable animal; but the degenerate may so prate in wisdom as to be the greater fraud and aimless fool. Truly, 'tis only a degenerate who can't tell a fool unglassed; but thy degenerate may, by his windy make, fool the world around. Nay, to me it seemeth that there is a medium betwixt all fool and all degenerate, and that must be the speechless ass; still, betwixt the twain, I would take the simpler, earful animal. 'Tis said that fools hunt misfortune; but this degenerate ne'er hath need to hunt, for it cometh to him apace. Nay, then, here's conceit: the first, only, and eternal chapter of the degenerate is to esteem himself more than wise; whilst thy fool acknowledges his folly. The degenerate may be learned: but 'tis a saying, withered by age, that the greatest of all fools is the learned fool—thus is he bigger than the fool. Yea, a degenerate, braggart-like, may talk as a wise man but to boom into folly; but this poor fool prates his honest folly, and, like an ass, is easily known by his bray. Nay, is it not true that many a fool hath passed for a wise man when he hath held his tongue? But thy degenerate ne'er hath sense enough to hold this errant wagger.

"Anon, a fool may chance to put something in a wise man's head—that's more than a wise man can do for a fool; but the wise man can put nothing in the degenerate's head, since his brain doth fake it. Yea, thy degenerate may seek wisdom; but it bideth not as such when he gets it, since fancy and delusion doth change, yea, fakes the good stuff of its virtue. Now, thy fool seeketh not wisdom; for it would be a poor fool, indeed, to seek that which he hath no need of. Here end I this fulsome folly; for it maketh little difference how thou mayst call them, for it doth stand that both are fools in the end. For, wherein doth wisdom live when 'tis ruined by error? Yea, the fool is just as worthy and less disappointing than the degenerate; for with the fool he hath not brains to use wisdom; but thy degenerate uses wisdom so as to turn it into folly. Thus say I: that it holdeth good that both are fools; yea, e'en both birth-made fools, perchance with this difference: the folly of thy degenerate hath tragedy in it; the fool's folly is simple, silly comedy. Yea, doubt it not, wisdon is ruined by the company it keeps, whether in the brain of the crazy man, the degenerate, the fool."

"Zounds, zounds, man!" said Theo Celsus, "thou groweth; thy say hath become winsome, for it is good sense. Verily, thou art right; for he who hath wisdom and knoweth not how to use it, must yet remain a fool. Aye, by my troth! 'tis fairly argued; for value exists only in use.

Ponderous his head, but void his brain—still a fool. Yea, doubt cannot touch it; for use, efficient use, is the sole value of all things in life, be it a brain or other thing. But thy terms are homely in this theme of degeneration. The ill-balanced, the eccentric, and the original degenerates, they whom thou calleth borderlanders, are not deeply sane nor deeply insane, since they are not truly wise men nor truly crazy men. Perchance, thou art correct, that it is because their wisdom is ruined by the company it keeps. Such men are only brilliant by contrast. Reven Pots was a bright character with a touch of genius; Echo Jem had constructive power; whilst Caius Niart all but touched the profundity of a flighty genius to only lapse into a prating, degenerate weakling."

"Ehen Eben," said Vegge Go; "here, indeed, puzzle nags me in these wiseacre borderlanders. Yea, they were all o'er too smart fools. Gadzooks! Reven Pots was a shocker; e'en like spasm, 'twas painful knowledge; but Echo Jem was a lazy, lying lout. Truly, he was e'en too worthless to be either fool or degenerate. Yea, heavens! I can forgive men who are born so, but not when they become so. Echo Jem was like a bad egg—neither a good egg nor a bird, but a slur upon Ma and Pa. Nay, then, pray thee, Para Blar, how dost thou tell that Caius Niart was crazed?"

"Perdie, 'tis plain," said Para Blar, "as Niart did but show in divers ways an errant mind; he talked alone of self; his extravagance ne'er obtained good results; as he grew into age he daily became foolish and vain. Niart was but crazed in every line of his actious ways; once powerful, he grew not, but became poor and weak in mind. Yea, thou canst see that he did not judge nor reason right; he thought wildly and reasoned wrongly. Aye, 'tis true that he had intellect; but his discernment was poor, his appreciation faulty, his apprehension errant, his understanding ruled by deluding ideas. Sum up and thou wilst see that he did not have native practical intelligence, void of natural prudence, lacking in tact of behavior, ill-balanced mentally, eccentric in action, and original in method."

"Nay, then, I pray thee," said Vegge Go, "if Caius Niart had waxed rich and prosperous, would he then have been a degenerate?"

"Nay, nay, my friend," said Para Blar, "thou asketh a riddle; for this Caius Niart did not do. But this I say: with such a mind as he but had it would have been impossible. For the man of sound mind hath a mind that rightly understands, conceives, judges, and reasons; is acute of sense, capable of thinking effectively, willing discreetly, choosing rightly; he hath good sense, right perception to enable him to discern, recognize, apprehend, and appreciate. Along with this he must have common sense to make the whole effective. Certain it was that Niart had not this."

"Aye, 'tis well," said Vegge Go. "It seemeth to me that Niart could in a way all this do. But, I pray thee, what—or rather, wherein doth intellect differ from common sense? as thou art aching, to answer I will ask thee, Theo Celsus to tell me."

"Aye, perchance, thou art thinking that thou art asking an elm tree for pears," said Theo Celsus. "But I will tell thee a great man hath written: 'to be able to discern that what is true, is true, and that what is false, is false—this is the mark and character of intelligence.' Intellect enables us to tell what is true and what is false; common sense is reason

born in man, and not taught him, which doth enable him to determine right from wrong. Yea, lest thou ask more, conscience is naught else than an inborn thing, which determines the right or wrong in questions.

'Good mind must truly possess
  Healthful intellect, in vigored form;
Conscience strong must it bless,
  Common sense its whole adorn.

Brain's function in wisdom's course,
  Minds know of right or wrong;
Souls glow in moral force,
  Combined good mind is formed.'

"Gods! thou art a wordy nagger," said Vegge Go. "E're thou art through I am but twisted like a silken skein. Thus thou tellest me that intellect, common sense, and conscience all are but the know of right or wrong. Yea, I ne'er had thought them triplets. Truly, when thou comest, I am but sped. Well, alack! well, alack! I know not what is man."

"Yea, 'tis well and alack," said Para Blar. "So thou knowest not what is man? Nay, by all that's great, thou hast, indeed, many fellows with thee. Yea, doubt it not, man is earth's marvel—the very touchstone of life, the inventive power of existence, the only expansive living artificer, the only living thing superior to living instinct. Yea, the God-touched reasoner of life! In the oldest of Egyptian days, there was over the portal of the temple of Isis this inscription: 'I am whatever hath been, is or ever will be, and my veil no man hath lifted.' Forsooth, to me this can mean naught else than man; it pictures him. Nay, then, is not man whatever hath been? Nay, then, is he not whatever that is? Verily, if this be so, then will he not be whatever that will be? and God alone can lift the veil."

"Humph! humph!" so thou sayest," said Vegge Go. " 'Tis well that thou answered; for I know now still less. Aye, marry! that man hath been, that man is, and that he will be. Why, dull the fool that knoweth not this. Yea, then 'tis said again, what is man?"

"Perchance," said Theo Celsus, "thou mightest know him if thy didst see him. Yea, truly, Vegge Go, thus I tell thee: man walketh upright, useth hand and brains, worketh with tools, cooketh his victuals, singeth and laughs, and, doubt it not, he shooteth to kill.

Yea, live dust is man—
With blood, he's powered mud;
Bloodless, he's dust again.

"Nay, then, hear thus a Roman emperor say:

Marcus Aurelius said of man;
He's flesh, blood, bones, and skin;
A pretty piece of knit and twisted worke,
Made of arteries, nerves, and veins.

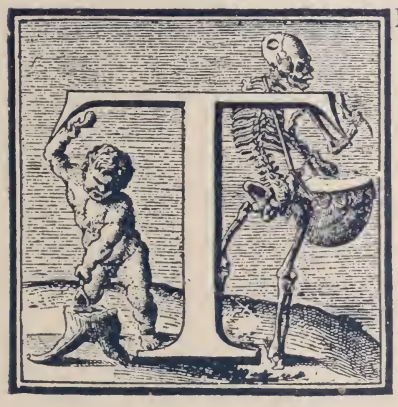
His life is as a winde:
Not one ever constant winde,
But every moment of an hour let out
But to be just sucked in againe."

"Yea, thou wise one!" said Vegge Go. "Thy say is somewhat plain; man sucker starts, and sucker yet remains."

[TO BE CONTINUED.]

RÉSUMÉ OF THE "SCHOTT TREATMENT" OF CARDIAC DISEASE.

By OTTO SUTTER, M. D., of St. Louis.



THE course of baths consists of six different strengths: the first and second consisting of different proportions of calcium chlorid and sodium chlorid; the third, fourth, fifth and sixth contain carbonic acid as well as these salts. By the expression "course" of six baths is not to be understood that every patient is submitted to the whole six strengths. It simply means that according as the patient improves the bath is increased in strength; for example: bath No. 1 may be administered for a period of several days; the patient failing to respond to it, No. 2 is given; and if there still be no response, No. 3, and so on, even to the full strength—that is bath No. 6. Frequently it is not necessary to go higher than the fourth bath, either because the patient shows distinct improvement with the strength already employed, or because there is absence of improvement, and his condition contra-indicates further submitting him to the treatment.

Bath No. 1 consists of sodium chlorid, four pounds; calcium chlorid, six ounces.

Bath No. 2, sodium chlorid, five pounds; calcium chlorid, eight ounces.

The following baths have, together with these salts, carbonic acid, which is produced by the action of hydrochloric acid and sodium bicarbonate.

Bath No. 3 consists of sodium chlorid, six pounds; calcium chlorid, ten ounces; bicarbonate soda, six ounces; hydrochloric acid, seven ounces.

Bath No. 4, sodium chlorid, seven pounds; calcium chlorid, ten ounces; sodium bicarbonate, eight ounces; hydrochloric acid, twelve ounces.

Bath No. 5, sodium chlorid, nine pounds; calcium chlorid, eleven ounces; sodium bicarbonate, one pound; hydrochloric acid, one pound.

Bath No. 6, sodium chlorid, two pounds; calcium chlorid, twelve ounces; sodium bicarbonate, one pound; hydrochloric acid, two pounds.

These various amounts of salt we have put up in packages and labeled bath No. 1, 2, 3, etc., and any strength of bath can be made up by ordering these packages. The calcium chlorid is best prepared in solution. The above proportions correspond to forty gallons of water, which is just about enough to entirely immerse the body. The bath is given in the morning, unless otherwise deemed advisable.

The following are the rules which have been laid down for the administration of the bath. Most of these rules have been made after perusal of the literature, and from instructions obtained from Dr. Schott personally:

The bath should be given on an empty stomach; allow the patient to make as little exertion as possible; assist him in every way. A sheet may be drawn over the tub, but not around the patient. Be sure that the entire body is immersed. Keep the finger on the pulse the entire time the patient is in the bath.

DANGER SIGNALS.—Cyanosis, dyspnea, apnea, inappreciable pulse. On appearance of any of these, take the patient out of the bath immediately, put him to bed and keep him as quite as possible. Friction while in the bath is not necessary; but if the fingers and toes become bluish, the extremities may be rubbed slightly toward the trunk. Friction should be cautiously employed. When the patient is out of the tub, rub him to a glow, give him a glass of milk or cup of bouillon, and allow him to rest for an hour.

DIET.—Small quantity q. 4h. meat, boiled chicken, mutton chops, eggs—two a day, oysters—raw or panned, vegetables of all kinds, peas, beans, lettuce, liquids, beef tea, bouillon, cocoa, lemonade, milk.

NOTE.—Never give more than four ounces of fluid at a time; should be sipped.

WINE.—Port, Rhine, sherry, brandy; dram to half ounce.

NOTE.—Something light (cocoa and toast) should be taken one hour before the bath; something light and hot (bouillon, milk punch and toasted crackers) should be taken directly after the bath. If the heart's action is poor, sherry, brandy or port wine may be given after the bath. Last meal to be taken three hours before retiring.

The exercises which are called by Dr. Schott "*widerstand-gymbastik*," or resistance gymnastics, are slow movements executed by the patient and resisted by the physician or operator. The exertion is the very least that can be employed, and should cause no fatigue on the part of the patient. Light, loose clothing should be worn by the patient, and he should be instructed to breathe quietly. It is hardly necessary to give full explanation of the exercises here, as it demands considerable attention, and is more in the order of a drill than of an explanation. It is important, however, to state that these movements should not be administered without thorough training from one competent to give it.

THE ADMINISTRATION OF IRON, WITH REPORT OF CASES.

By LOUIS DRECHSLER, M. D., of St. Louis, Mo.

IF an apology is necessary for my writing on this subject which, it may be said, has a literature of its own, it is to be found in the frequency with which physicians are called upon to treat anæmic conditions. While the condition of impoverishment of the blood is frequently only symptomatic in its nature, depending upon malaria, syphilis, or other diseases, it frequently remains after the removal of the particular cause, and demands the close attention of the practitioner. The administration of some agent which will increase the hemoglobin of the blood, either by increasing the amount in the blood cells or, if deficient, the number of the cells, and perhaps both, is needed in such cases. Arsenic will stop the destructive process in many instances, but will not increase the amount of hemoglobin. Iron, as presented in its Pharmacopœial forms, is rarely absorbed to any permanent beneficial extent, and is frequently followed by headache and constipation. To be absorbed iron must be in the form of the peptonate or albuminate. The weakened stomach of an anæmic patient is not able to convert the officinal preparations; this and the untoward effects of their administration have caused me to look outside of the pharmacopœia for an agent.

About two and one-half years ago my attention was called to a popular German preparation, presented to the profession by Dr. Gude, under the name of pepto-mangan, and composed of peptonate of iron and manganese, pleasantly disguised. This preparation has its iron and manganese in an organo-plastic form, and undergoes no chemical change when taken into the stomach. It is, practically, a predigested preparation, readily taken up by the mucous membrane without discomfort. Believing both iron and manganese to be indicated in most cases of anæmia, I used this preparation with most surprising and gratifying results. I have continued its use in suitable cases, sometimes in conjunction with arsenic. I have had good satisfaction and found but one case which complained of any nauseating effects. I have employed it in the treatment of the various anæmic conditions, and received better results than from any single drug or combination. In several cases of functional menstrual derangements it has given satisfaction. As a systemic tonic it is of great use in surgical practice.

The following are a few cases in which pepto-mangan has been employed:

CASE 1.—Male, aged twenty-nine years. Had typhoid fever some months ago. Convalescence very slow. Pronounced anæmia and emaciation. Patient complained of gastric pain, headache and exhaustion.

Prescribed pepto-mangan (Gude) after meals in conjunction with arsenic and quinine, as there seemed to be a mild malarial complication, though examination of blood mount did not verify it. Patient improved rapidly and regained normal weight at end of six weeks. Two examinations of the blood were made. The first slide was prepared after one week's treatment, and showed 3,250,000 red cells; the second slide, four weeks later, showed 4,600,000. Treatment continued one month longer, but no further counting was made, as patient failed to report on appointed time.

CASE 2.—Male, aged twenty-five years. Anæmia. Patient just previously had suffered from intermittent fever, and was treated by an army surgeon with good recovery. When he came to me he was very anæmic; complained of poor appetite, headache and constipation. Ordered pepto-mangan (Gude) in doses of tablespoonful after meals and mild laxative. Improvement was very rapid.

CASE 3.—Female, aged eighteen. Never menstruated. Anæmic and very nervous. Examination showed genital organs normal. Ordered pepto-mangan (Gude), two teaspoonfuls after meals. Patient menstruated four weeks after treatment was instituted, and again four weeks later. Treatment continued.

The above cases have been selected from my case-book as presenting typical indications for this valuable remedy, which shows itself to be all that is claimed for it in the matter of increasing the number of red blood corpuscles and their capacity to carry hemoglobin, as well as in meeting the requirements of an emmenagogue for functional amenorrhœa.

Chemical Building.

HISTORICAL SKETCH.

THE IATRO-MECHANICAL SCHOOL.[1]

By JAMES MOORES BALL, M. D., of St. Louis.

BAGLIVI, 1668-1707.

Giorgio Baglivi studied in Naples and probably graduated at Salerno. He attended the University of Bologna, where he followed the lectures of Malpighi, the greatest anatomist of that period. Baglivi became professor of anatomy at Rome, and in 1702, five years later, succeeded Malpighi as a member of the Royal Society. The last years of his short life were filled with work. He filled the chairs of anatomy, surgery, and medicine with éclat. His collected works were published in 1704 in Latin. His chief works are *Praxis Medica* and *De Fibra Motrice*, dealing respectively with the art and science of medicine.

Baglivi is noted for his aphorisms: "The healing art is not a product of speculation, but is the daughter of Time;" "Medicine consists entirely in observations;" "The physician is the servant and interpreter of Nature." That a change was taking place in medicine is evident from the following:

[1] Continued from the October Issue.

Carolus Maratta inv., delin., et Autori amico DDD. Romæ 1703.

BAGLIVI

"Most writers on medicine for the last forty years follow Paracelsus and Van Helmont in deriding the works of the ancients; and especially do they abuse Galen, as though he were the most abandoned villain that ever lived. But at the same time they imitate the chief error of the Galenists in setting up new idols in the form of systems, which they declare are the only true ones, and as much harm is likely to be done by ascribing infallibility to Van Helmont's assertion that bleeding and purgatives are always injurious, as the old Humoralists did by their excessive employment."[1]

Baglivi endeavored to complete the theory of Borelli, by applying it to pathology and therapeutics, which he had scarcely touched. He knew that the physicians of the time, whether Galenists or Iatro-chemists, were neglecting the solids of the body in their blind devotion to the humors; and he proposed to correct this error by showing his contemporaries that the solids hold over the humors in all the functions of the body, whether normal or diseased. "Full of this opinion," says Baglivi, "I devoted myself entirely to the observation of the symptoms during life, and to the study of the anatomical lesions after death; and I have been convinced by my own eyes that the influence of the solids is greater than that of the liquids, even in the generation of diseases." (*De Fibra Motrice et Morbosa.*) He states that the simple or primitive fiber is subject to two changes: an excess of relaxation or softening, and an excess of tension or rigidity. There are two kinds of fibers: the fleshy, which arises in the heart and constitutes the muscles, tendons, bones, and ligaments; and the membranous fiber, derived from the meninges of the brain, and forming membranes, vessels, glands, and other tissues. In the body are two motor principles: the heart, which sends a liquid to the fleshy parts for their nourishment, and without which their fibers would not act; and the brain, whose coverings give impulse to the movement and life all the membranes and viscera.[2] So much for Baglivi's theory.

It is as a practical physician that Baglivi wins our attention. His description of what he calls mesenteric fever tallies with the typhoid of to-day. His opinion of tea, coffee, and chocolate is worth remembering: Excessive coffee drinking causes headache, sleeplessness and tremor, but is a sovereign cure for after-dinner headache. Tea is useful in nervous headache; chocolate increases the quantity of the blood and is a tonic. Its excessive use may cause inflammatory diseases and apoplexy. He uses the Baconian apologue in describing the various medical sects: "The ant, who gathers food at random, and uses it immediately, is a type of the empiric who goes hither and thither collecting facts, and applies them at once, untested either by the touch-stone of experience or the crucible of reason. The spider, who spins her whole web out of herself, represents the theorizing doctors. The pure dialecticians of science, the bee, does better than either; for she gathers the crude honey from the flowers, introduces it into her own organism, and there brings it to all the perfection of which it is capable. But if you look for physicians who act like her you will find none."

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[1] Withington: Medical History, p. 322. London, 1894.
[2] Renouard: History of Medicine, p. 526. Cincinnati, 1856.

FURTHER EXPERIENCE WITH LACTOPHENIN.

By GEORGE HOWARD THOMPSON, M. D., of St. Louis.
Professor of Materia Medica, St. Louis College of Physicians and Surgeons.

INCE my previous articles on the subject were published, I have collected some more data confirmatory of my earlier experiences, and have also developed some new features, which, however, are based upon the antipyretic and analgesic effects of this most valuable remedy.

F. H. K., aged thirty-eight, previously healthy, though of rheumatic family history, called me to treat him for a high fever, accompanied with severe pain in the right elbow and shoulder-joints. No other joints were found to be involved. Inspection showed considerable swelling in these two joints, and pressure or movement caused great pain. There was no fluctuation nor other indication of a local suppurative process. Fever was 104°; pulse, 94 to the minute; perspiration was profuse; great thirst; urine scanty and highly colored; sleep was absolutely out of the question, owing to the constant perspiration and pain. Possibly, the fever was also quite a factor in causing insomnia. I do not like a fever above 102°, and whenever I treat conditions characterized by a higher fever, no matter what specific treatment I may institute, I always prescribe a symptom remedy to meet that special condition. Here was a case which called for an antirheumatic, an analgesic, a soporific, and *an antipyretic*. I knew of nothing so well adapted to meet this last symptom, and incidentally benefit the others, as lactophenin, which also by its minimum of cardiac depression would favor the prevention of cardiac involvement, so common in acute inflammatory rheumatism. I prescribed lactophenin in powder, gr. xv. every three hours, to be withheld during the night if the patient slept. The first powder reduced the fever to 100° within an hour, and mitigated the pain. The second gave so much relief to the pain that the patient could rest with comfort, and soon after fell into a tranquil sleep which lasted four hours, when he awoke and took the third powder. The excessive perspirations were apparently controlled, and it now being bedtime the patient again fell asleep and rested comfortably all night, resuming his medicine the next day and continuing with greater or lesser regularity. The temperature was soon down to normal, the swelling subsided, the pain disappeared, so that considerable movement of the arm did not cause him to flinch, and in five days he was back at his desk again.

I had intended at first using the lactophenin only as a preliminary to the institution of a course of salicylates, but the apparently specific action of this remedy led me to continue with it alone throughout the short course which this attack ran, following it up with an alkaline tablet as a prophylactic against recurrence.

Aside from the confirmation of my previous experiences with lactophenin, I have here to state that this agent will reduce excessive perspiration in cases of acute articular rheumatism, and in such cases is a reliable hypnotic. In ordinary cases of fever there is a dryness of the surface, in which cases lactophenin relaxes the sudorific glands, inducing a gentle perspiration, which, however, is only a small factor in its antipyretic action; but in the hyperidrosis characteristic of acute articular rheumatism, lactophenin reduces the perspiration by equalizing the excretions, as is evidenced by the increase in the quantity of urine and the resumption of its normal characteristics.

615 Century Building.

Leprosy is a disease of the Chinese, according to the results of an important investigation in China and the Pacific islands by Mr. Sidney B. J. Skertchly. According to Mr. Skertchly, the black races are quite free from it, and that it has been found in no place where there had been no Chinese lepers to introduce it. It is not distributed throughout China, whole provinces being free from it, but it has its center in Kwantung and Fo-Kien provinces. It has spread with diminishing intensity in all directions, but it would appear that in Hawaii it has a new focus of unparalleled virulence. From the investigations made by Mr. Skertchly, neither topography, climate, nor geological conditions appear to influence its distribution. It is, indeed, a true as well as a strange fact that it has invariably followed coolie immigration; and its spread, he avers, can only be stopped by suppressing the coolie traffic from the infected provinces.

The activity concerning the investigation of the air appears to be going on unabated. Another curious discovery concerning the atmosphere is recorded. A German chemist, H. Teudt, has noticed that when air is first heated its expansion deviates two per cent. from Guy Lussac's law at 400 degrees, and three per cent. at 450 degrees; this anomalous expansion being shown only by atmospheric nitrogen, and not by oxygen, carbonic acid, chemically prepared nitrogen, air previously heated, or air collected after rain. A suggested explanation is that nitrogen must have an allotropic form, changed to the ordinary form by heat.

Dr. Alex. Wallace, of Colchester, England, claims to have discovered a connection between the set of the human ear and the pitch of the voice in singing. Thus, he is in the habit of amusing himself by forecasting how vocalists he had never heard would sing. He has found that when the ear is set vertically on the cheek a deep-toned voice may be expected, and that a tenor or soprano voice accompanies a slanting downward and forward of the ear. He is at present unable to offer any anatomical explanation.

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UNJUST LAWS FOR HIGHER MEDICAL EDUCATION.

To those who have followed the editorials of this magazine for the last five years it will be unnecessary to state that the TRI-STATE MEDICAL JOURNAL AND PRACTITIONER stands for higher medical education.

There is, or should be, reason in all things. In the enactment of legislation for the advancement of higher medical education, however, the constitutionality of a measure often is lost sight of by the overzealous advocates of professional reform. The inevitable result is to bring the medical profession into disrepute with thoughtful persons. Such was the case in Missouri, where the Supreme Court decided that the Board of Health had exceeded its powers, and that it is not a law-making but a clerical body. In Iowa the same result, we predict, will obtain in the near future: for the last Iowa legislature passed a law of which the following is an extract:

"From and after January 1, 1899, all persons beginning the practice of medicine in the State of Iowa must submit to an examination as set forth in this chapter, and, in addition thereto, shall present diplomas from medical colleges recognized as in good standing by the State Board of Medical Examiners, and all persons receiving their diplomas subsequent

to January 1, 1899, shall present evidence of having attended four full courses of study of not less than twenty-six weeks each, no two of which shall have been given in any one year."

From an Iowa paper we clip the following: "The secretary of the Board of Medical Examiners has been informed from several sources that medical colleges in Missouri are promising medical students who have taken two courses of medical lectures that they will graduate them upon one additional course. Medical students who avail themselves of such promises are told that their diplomas granted after January 1, 1899, will not be recognized. They will be denied examination; and without examination they cannot receive certificates."

We venture to say that this law is not constitutional. The object of all law is the protection of the people in life, liberty, and the pursuit of happiness. If the people are to be protected from incompetent physicians, there must be a standard or measure to which all seeking license to practice must arrive. The criterion is, or should be, the knowledge possessed by the applicant. If the applicant has knowledge sufficient to enable him to pass the examination demanded by the State's representatives, then a license cannot be refused the applicant, barring lunacy or felony. The Iowa law, however, out-Herods Herod by demanding a double criterion: the applicant must first be a graduate of a school which pleases the officials of the State; and then comes the trial by examination. The Iowa board can no more, in reason, exact the double criterion than it can assert with truth that all men are born equal in mental and physical vigor. If a doctor wishes to practice medicine in Iowa and applies to this board for examination, it is the duty of the State's officials to hold the examination, regardless of whether the applicant has taken two or twenty courses of instruction "of six months each." If the Iowa law is constitutional it will do great damage to many of the best medical colleges in the land, and will close the doors of the "Hawkeye" State to some of the ablest physicians of the world.

Nor is this all. To those of us who know the history of medical education in Iowa it is clear that this law was made for the protection, not of the people, but of a few low grade, disreputable, and nefarious Iowa medical colleges which have been known to admit and to graduate students of medicine so unlearned that they could not write and spell the English language. And furthermore—some of the members of the Board of Examiners (officials of the great State of Iowa) are themselves professors in medical colleges whose records would not bear the light of investigation. To Halifax with such reform! J. M. B.

THE JURISPRUDENCE OF DRUNKENNESS.

The question whether the intoxicated person is *non compos mentis*, and that as such this condition should have weight in criminal as it has in civil law, is one where sentimentality is unduly close to humanity. We should judge, however, that the case is one where expediency possesses more than an ordinarily large claim in its elucidation. There can be no doubt that in some persons an intoxicated condition virtually renders them *non compos mentis;* and we believe, as much so as any inmate within

a lunatic asylum. These cases, of course, must be studied upon the basis of previous condition, more especially as to faulty family history. But it is a field fruitful in deception. While it is a credit to any humane heart to believe many intoxicated persons crazy at the time while so intoxicated, any rule established relating to lessening the offense or preventing the punishment would inevitably lead to frequent attempts to thwart justice, and enable the practical villain to accomplish a purpose inimical to all sense and justice. Hence, we believe that the common sense of the law deals with these cases in the best possible manner for the best interests of communities in general. The *British Medical Journal* of recent issue speaks pertinently upon this question in the following manner:

"The legal view, expressed by Coke, that the drunkard who is voluntarily insane (*voluntarius dæmon*) enhances his criminality (*omne crimen ebrietas et incendit et detergit*) is certainly not in accord with modern ideas. Eminent legal opinions and decisions of recent date are quoted by Dr. Sutherland, in which drunkenness was held in some measure to reduce the responsibility—for example, from murder to homicide. Whether this is based on the assumption that the drunkenness was involuntary does not appear. The civil law holds the drunkard to be irresponsible for his own acts—such as testamentary dispositions and contracts made while in a state of intoxication. The inebriates act of the present year provides, first, for the punishment of the criminal habitual drunkard by imprisonment; and, secondly, for treatment by detention in an inebriate reformatory. These legal methods of dealing with drunkards are so contradictory that they must necessarily be based on uncertain or erroneous views, which demand consideration and if possible amendment. Intoxication, as even Coke admits, is an insane state, and the consequent irresponsibility which is recognized in civil law, if extended to the criminal, would leave only the voluntariness of the drinking as a basis for punishment. The moment at which drinking or the habit of drinking becomes involuntary in many cases is impossible to determine. The inebriates act assumes that drunkards can only be punished satisfactorily by admitting a partial responsibility and a partial involuntariness demanding treatment. It would appear that the law now admits that the element of disease in drunkenness, that is of defective self-control, ought to be taken into account. An assault by a sober man, for example, which might properly be punished by a week's imprisonment, when committed by a drunkard might demand treatment in an institution for three years. If this becomes generally known, it is probable that treatment will become much more deterrent to those who are still susceptible to it than punishment has hitherto been. Instead, therefore, of insisting on the criminality of drunkenness, we should insist on the view that it is an abnormal condition requiring, in every case coming before the courts, very full investigation in regard to the extent to which the diseased habit has extended." OUTTEN.

A SAD LOSS TO SANITARY SCIENCE.

It is a sad thing that we are frequently called upon to deplore the loss of men who by their birth-given and cultivated talents are men of rare worth and genuine benefit to the nation at large. And what makes it

additionally deplorable is when the loss comes when such persons are most needed. This is the case in the death of Col. George E. Waring, Jr., who died of yellow fever in New York City. Colonel Waring was the head of a special commission appointed by the United States to devise some plan for improving the sanitary condition of Havana. As 'tis well known that Havana has been the seeming starting point for decades past of the yellow fever, and from which the southern States were infected, Colonel Waring, with that true, prompt, and splendid devotion to duty, was compelled, by the nature of the conditions to be investigated, to visit and inspect various pest-breeding points of Havana's filth-reeking holes and death-breeding slums. After having done this he left Havana to return home; but he had contracted yellow fever, from which he died at his home in New York City. The past record of Col. George E. Waring, Jr., had been so thoroughly efficient and beneficial that it was but natural that when work of this kind had to be done he was the first citizen of this country whom the government looked to. Everything done by him in a sanitary way had shone resplendent with benefit and efficiency; this, along with a mind endowed with a powerful inherent, native executive ability such as few men ever possessed. The writer had been placed in a position to know the condition of affairs in Memphis prior to his being called upon to correct the same. From the day that he took charge in Memphis up to this very day, Memphis stands as a monument of his wondrous work and remarkable prescience. If there is any community in this country who should call on God Almighty to bless the name of Colonel Waring, that community is Memphis. In 1878 he introduced and completed a system of drainage at that point which has been thoroughly efficient and constantly life saving. It is useless to endeavor to extol by recounting his efforts in a sanitary way; for they stand monuments to his rare mental worth. New York City, by the touch of his mind, assumed a sanitary condition such as had not been dreamed of; and the impetus spread thence to every prominent city in the United States.

Such men as Colonel Waring are the useful and valuable jewels of a country's progress, where results spring as the gracious and direct results of a God-given, efficient mind. The flaming glare of military heroes, the conspicuous and exalted position of political heroes, the brilliant position of mental workers, in many ways do not dim the hallowed glory of the efficient memory of men who, like Colonel Waring, were the means of taking pain, suffering and death from their fellow-man. Such men, indeed, are as a soothing balm, when contemplated side by side to a hollow glory wherein show and selfishness fill the theme. For one, our worship goes to the savior of his fellow-man over and above the self-aggrandizing souls of selfish, ambitious creatures. We humbly bow to accept the inevitable; but we thank God that Col. George E. Waring, Jr., was given to us for the short time vouchsafed. OUTTEN.

BRAINS WANTED.

Dr. Burt G. Wilder, Professor of Physiology at Cornell University, has recently issued a circular letter asking prominent men here in the United States to bequeath their brains to the university. He candidly remarks in this circular that there is no difficulty in obtaining the brains

of the ignorant, the insane, and the criminal. But he is desirous of more than this, since there has been extreme difficulty in obtaining brains of persons in whom the cerebral development is above the average. He believes that it is deeply essential and greatly desirable for the advancement of science that a number—indeed, a considerable number of brains of this character be secured. All of which Dr. Wilder is to be commended for. But, speaking of brains, there is no doubt that this is one of the everlasting wants of man. Since man began there has been a crying demand for more brains, as it is true that:

Lack of brains admit of no defense,
Since want of brains is want of sense.

It is even true that many men have even died in utter want of brains; but we never heard of any ever having lived with too many.

Dr. Wilder, like all men here below, doth truly want but little;
But if you have a developed brain, that he wants to pickle.
For now he has o'er too many brains of villains, fools, and cranks;
So send on your developed brains, to keep in his pickling tanks.
Perchance you think that this request is strangely cool and hard-hearted;
But he says that you need not send your brains till you have departed.

THE EDUCATIONAL PRIVILEGES OF ST. LOUIS HOSPITALS.

We have large hospitals in St. Louis, and an abundance of good work done in them, both medical and surgical, and, considering the political character of the appointments, the officers are fairly competent; but no physician of experience can be around them long without being convinced that the educational facilities afforded by them are very poor in proportion to the amount of work done. The present buildings are old and crowded, but the fault is not in them. The instructors are all capable and employ, to the best of their ability, the privileges allowed them. The fault is not with them. The hospital endures the confusion and bother of several hundred students flocking around each day, tracking mud and dirt all over the place, without fee or reward, and with very scant benefit to the student. Fifty years ago some semblance of medical instruction could be imparted, if the professor simply had a room of sufficient size, a good, loud voice, and a few students to talk to; but times have changed. Other cities have recognized this change, and altered their ideas and facilities accordingly. St. Louis has not done this. We are outgrowing the spectacular in many ways. The orator gives way to the desk man; the flowery medical lecturer, with his stories and wandering-down-by-the-rippling-stream of eloquence, is being displaced by the clinic, the laboratory, and the library, where but few students are instructed at one time. The bold surgical operator, who astonishes the crowded amphitheater with his skill, has about come to the conclusion that his work is not instructive, but simply advertising; for not one of the hundreds who witnessed the display will ever be called upon to perform similar work until years have vanished and reputations now in the larval state have been hatched out and clothed with wings

and feathers of their own. And by that time the fashions will have changed.

What the student needs is to assist in preparing patients for the operating table and in dressing the surgical wounds afterwards, so that he may at once, on starting in practice, be able to fill the position he is expected to fill. Many a student graduating to-day is better prepared to undertake a serious operation himself, which no one has any notion of entrusting to him, than to make a careful diagnosis, administer chloroform intelligently, or dress a wound and attend to the after-treatment of a case, which is the very work he ought to know and understand perfectly. It is of the utmost importance that a young physician or surgeon should first learn to be a competent nurse. This he has no opportunity of learning in any St. Louis hospital with which the writer is acquainted. A reasonable fee should be charged each senior student for the privilege of the hospital, say $8.00 per year of twelve months. This should go to the hospital for the purpose of establishing a hospital laboratory of pathology and bacteriology, a large museum and library, to which these students should be admitted, not in large classes, but separately, each following some sort of individual line of investigation. The beds of the hospital should be divided up among these students, each having his own work to do; all dressing of wounds and preparing and administering medicines which could safely be intrusted to the student, should be done by him under the direction of the regular physicians of the hospital. There should be a regular city pathologist and bacteriologist employed at a good salary, and he should give instruction to all students and employ them in the regular work of the hospital as far as possible. The same method ought to be employed by the hospital pharmacist. In this way each student could come and go at his own time and without confusion. I do not think the fee would make much difference to the student if he only received something in return for it. It is the impression of many that the lower class men should not go the hospital at all, but they might be allowed the privilege of the out-door dispensary. The senior year should be pre-eminently the clinical year.

At present, the privileges of the maternity hospital are entirely denied to the students. This is a wrong and disgrace. Thousands of young physicians have been graduated from St. Louis without the least practical instruction in midwifery. At the same time, over four hundred cases of obstetrics in our hospitals waste their sweetness on the desert air. The midwifery hospital should be transferred down town, and the building known as the Female Hospital employed as an overflow accommodation for the sick of the Poor House. Each case of midwifery attended at public expense should be witnessed by at least two gentlemen of the bed chamber, appointed from the senior classes attending the medical colleges of this city, who should be made to pay a reasonable fee, say one dollar for each case witnessed. This would compensate for all the trouble, and purchase many little appliances and delicacies which would be agreeable to the patients. The student should be allowed to observe the after-treatment of the cases he has witnessed. The authorities would doubtless listen to any united expression on the part of the colleges; and when arranging for a new city hospital, the educational facilities should not be neglected or provided for with a niggardly hand. R. C. B.

HOW TO DO AWAY WITH MEDICAL COLLEGES.

THE KINETOSCOPE IN SURGICAL INSTRUCTION.—"At the meeting of the British Medical Association just held at Edinburgh," says the *Revue Scientifique* (September 3d), "M. Doyan read a paper with illustrations on the services that kinetoscopy can render to the teaching of surgery and in divers operations. This method, which enables us to follow all the details of an operation, has various advantages over simple projections and stereoscopic views of which the principal are the following: (1) The considerable enlargement of the negatives and their rapid succession renders all retouching impossible; (2) the indefinite reproduction of the negative facilitates popular acquaintance throughout the world, not only with operatory processes, but also with the skill and personal qualities of each surgeon. No confusion will, in future, be possible between processes often imperfectly discriminated by those who have had access only to descriptions and designs that are not sufficiently detailed. Still further, the surgeons of all countries can, without the trouble of going to visit the principal surgical clinics of the two worlds, decide in advance in which places they will be likely to learn most. The speaker thinks that from the point of view of instruction, demonstration should be made in the following manner: The professor or lecturer first describes the operation, whose different stages are, from time to time, represented with the aid of fixed projections representing either schematic designs or certain of the kinetoscope pictures enlarged and selected for the purpose. The method being once described the operation is then shown by means of the kinetoscope, just as it was really performed. This kind of animated photography of operations is also interesting in giving the surgeon a chance to see himself operate, and consequently of modifying details of his technic, if he thinks proper."—*Literary Digest.*

A correspondent of the TRI-STATE MEDICAL JOURNAL believes that he has discovered a method whereby the modern medical college can be done away with. He believes in extending the use of the kinetoscope to all the clinical field in medicine and not let surgery alone monopolize its use. He has come to the conclusion that a way has been found when only a few colleges will be needed. Thus he descants:

"Did you notice the article on the kinetoscope in surgery? Say, I think, like Colonel Sellers, there is millions in it with gramophone-attachment clinics on wheels. Professor Cutmanup will now give you an exhibition of thigh amputation with aseptic precautions. The band begins to play, the gramophone gives the clinician's remarks, the panorama of the *modus operandi* passes in view, the clinic is over. One hour later Professor Curette gives the school an object lesson in the methods of radical cure of endometritis, and so on, till we come to the last and most interesting part of our entertainment, the expulsion of a tænia solium. Note the peculiar fullness of the patient's face with its flush as he strains to expel the parasite, five feet, ten feet, twenty-six feet, then the head; all the minutiæ explained by gramophone. Visit all cities where medical colleges are not present and charge fees to graduate and then a diploma. This kinetoscopic, gramophonic medical college on wheels would certainly possess

merits over and above some of our medical colleges possessing some of those elements strangely like Jew clothing store methods, where they will take you for a quar-r-r-ter of a dollar a piece. Here, let the tape-worm howl."

OUTTEN.

THE DECAY OF FRANCE.

The inexorable laws of physical and social life ever contain germs of decay, whether in the single individual or in the nation at large. To one who will take time to investigate, it will be plainly evident that there is an undoubted decline of the French nation.

> "Ill fares the land, to hastening ills a prey,
> When wealth accumulates and men decay."

First, the decrease in population of France has been so evident as to produce upon the world—yes, upon its own thinking men—a vision of a dying nation. It has been published broadcast that to such an extent has maternity been ignored that it has been deemed necessary to form societies to encourage the propagation of children. It is plain and self-evident that when the death rate of a nation begins to exceed its birth rate, that it is a mere matter of time when such a nation becomes extinct. Again, there appears to exist among the French an utter disregard of family ties—yes, complete ignoring of the sanctity of the family relation. It is an open assertion, repeated constantly and flippantly, that there is not a French statesman, among even the most exalted, who has not a skeleton in his closet. A recent writer says: "No American in public life has ever dared openly to keep a mistress; such things have occasionally occurred in Great Britain, but always to the serious social and political detriment of the evil-doer, who in not a few cases has been ostracized by his associates. But not so in France." There can be no doubt that vice, physical degeneration, and a decline of manly spirit go hand in hand. Again, it is said: "The descendants of the Romans have perpetuated the vices listed by Petronius Arbiter, and have forgotten the virtues inculcated by Cicero. There is probably not one form of vicious or criminal indulgence practiced in Nero's golden house which may not to-day be exemplified in the fashionable quarters of Paris. The Gracchi, the Catos, died with the Romans; but Apicius survives in his possible descendants; and here and there deeds are brought to light which testify that the spirit of Messalina of Agrippina still lives." Moral heroism, an inborn trait to strong natures, appears to be lacking among the French. A short time ago the great steamer *Bourgogne* was run down and sank, and a more hideous and debasing scene has never been enacted since civilization began. The miserable wretches of its crew were seen to strike with oars and handspikes the struggling passengers who were trying to clamber into the boats. It is horrible to relate that many helpless victims met death at the hands of this fiendish and cowardly crew far more ghastly and horrible than beneath the waves of the ocean. But then, you may say, these were coarse, ignorant Frenchmen. Still, the Parisian gentlemen of social position and fortune acted with equally low, cruel and selfish cowardice only a short time before the sinking of this steamer. We quote from a daily

paper: "At the Charity Bazaar fire in Paris, gentlemen of social position and fortune were seen to strike ladies with their canes and to thrust them aside from the only opening at which escape was possible. In the frenzy of fright the men forgot their manhood, and the desire to save their own lives overcame all consideration for the weaker sex. The men escaped, but the women were burned." In a wild panic it frequently happens that every instinct of the nature is directed towards flight; but it is difficult to believe that had Americans or Englishmen been concerned in such an incident they would have acted as did the French gentlemen of social position and fortune at the Charity Bazaar fire. Now comes the spectacle of a decline of the French army. This Dreyfus affair shows a condition of moral obtundity almost horrifying. Perjury, forgery, lies, and false witnesses mark its every course—this not in the rank and file, but among the very leaders of the army. Space will not permit us to go into further detail, but certain it is that sufficient cause has been mentioned to indicate that French decay is manifest. Social viciousness has sapped the productivity of the country. The lack of family sanctity, with its warm, strong, and ennobling traits, is evident. The display of physical and moral cowardice; the general corruption in the army, financial, social and political circles; the utter disregard of morality, was never practiced upon a scale so large before. Private morality in France is a thing but rarely known; for it is said that acts which, elsewhere, would consign a man to social and political obscurity, are regarded as innocent gayeties, to be laughed at rather than be taken seriously. OUTTEN.

HAROLD FREDERICK'S DEMISE—A CHRISTIAN SCIENCE MURDER.

No greater delusion has ever been perpetrated upon civilized man than so-called Christian Science. Its utter and naked idiocy would to any sensible man have seemed to have been a strong ban for its acceptance; but, strangely, it would seem that conditions are rife or become so where acceptance is received in cases surprising and almost staggering. There is no doubt that often it is that when persons become debilitated by disease that there is engendered in the person so affected a loss of mental resistance; and this seems to be particularly so with persons who in health have been unusually strong and well balanced.

The followers of this mad, erratic, and so-called science are in the main weak-minded and hysterical creatures—persons upon whom suggestion acts with ease and undue avidity. These people appear to place themselves in a position wherein all previous laws are ignored, at a simple desire upon their part to make themselves superior to law, God Almighty, and the rest of the world. And yet 'tis a demonstrable fact that, as a general thing, they are ignorant of the laws of health or disease, and God or man. It is these self-same creatures who presume, in their benighted arrogance and egoism, to guide, direct and control God Almighty. Yes, in their blind zeal they constitute themselves deputies of God, and their irreverence touches the extremes of audacity and senselessness. Monstrous! these weakly creatures presume (though under the guise of prayer) to tell their Supreme Creator what's best for Him to do, when their only recommendation is utter ignorance, puerile pretension, and an officious,

idiotic presumption. Their own egoistic, inordinate self-study is a phase of disease which, if persisted in, must lead to insanity. These are the only creatures in civilized communities who dare to presume and announce their ability to accomplish results, whilst the deepest of ignorance constitutes their main claim to efficiency. We believe that punishment—positive, direct, and pronounced—should be inflicted upon these deluded and hysterical fools. Under the guise of prayer, hypocrisy, and the most miserable cant, they pursue a commercial pursuit.

We have recently read an account of the coroner's inquest in the case of Harold Frederick, an English novelist of celebrity and an unusually promising person. Through the fateful work of circumstance and the maudlin aid of Christian Science he was made to fill a premature grave. It would appear that Mr. Frederick had been suffering from rheumatism, and through the resistance of those who had him in charge, medical aid was not called in. From the evidence presented it is manifest that conditions were engendered aidful and withal fateful to his demise. It appears that his mental condition, generally, was that he possessed a strong-minded, obstinate, and self-opinionated personality. He was hemiplegic; he suffered mental weakness, and was, therefore, entitled, in the eye of the law, to the same protection and care from those who had him in charge as a child would be. The evidence showed that, notwithstanding medical instructions to the contrary, Mr. Frederick was allowed to drink what he liked, to smoke, to lie all day in the garden, and to take longer drives than he ought to have taken. There was no direct evidence to show that Mr. Frederick was a believer in Christian Science, although he had on several occasions spoken in its favor. The coroner thus continues to sum up the case:

"Mrs. Mills was not much in the actual presence of the deceased, yet, according to the tenets of Christian Science, her treatment was supposed to be as successful in her absence as in her presence. The jury could consider whether the evidence was sufficient to justify them in charging Mrs. Mills with manslaughter, on the ground that she neglected the duty of a guardian in refraining from calling in medical aid. Whatever might be said for or against Christian Science, no words of his would adequately convey to Mrs. Mills his utter abhorrence of her so-called treatment (cheers). And it was difficult to realize, in these enlightened days of the nineteenth century, that sensible and intelligent people should lend themselves to such an absurd course of procedure. But the fact remained that a valuable intellectual life had been thrown away merely for the want of proper medical care. He had no doubt that both Miss Lyon and Mrs. Mills acted in what they believed to be the best interest of the deceased; but they could not excuse themselves on that ground."

The jury, after a brief consultation in private, returned the verdict of manslaughter against Mrs. Athalie Mills and Miss Kate Lyon.

Such is the fatuity of human nature that frequently persecution accelerates a false belief; but to any physician who has had experience with the practitioners of Christian Science (known thus), their methods are underhanded and contemptible. Prayer certainly cannot be of much avail in the mouths of canting hypocrites, ill-gratified sexualists or fanatics. Hence, we welcome this verdict, and only trust that the practice of Christian Science will be met upon the laws of eternal justice. W. B. O.

THE BUBONIC PLAGUE IN VIENNA.

The Pestis Bubonica, or bubonic plague, has broken out in Vienna under conditions, to say the least, which are unique. From information gleaned it would appear that a series of bacteriological experiments had been carried on by Dr. Müeller, a young physician who had gone out to India with the Austrian Commission to study the plague under the most favorable conditions. A series of experiments were being carried on in Professor Nothnagle's bacteriological laboratory to prove that the action in the body is caused by a specific bacillus. A number of experiments were made upon animals, both as regards its production and as regards its prevention, and kept in the observatory under observation. Dr. Müeller was considered an authority on the plague, owing to the fact of his study, and additionally to the fact of his having been to Bombay for the purpose of studying it on the spot. It was a strange fatality for Dr. Müeller to have survived all the dangers in a pest-ridden community to be affected with the disease in Vienna. Five cases, in addition to that of the late Herr Barisch, the assistant in the establishment, who contracted the bubonic plague while cultivating the bacillus, have now occurred. Herr Barisch, it would seem from all information gleaned, while a good attendant was not overly clean, and it is supposed that in handling the animals infected himself from carelessly misplacing his pipe or using his soiled hands in a careless manner. The disease at Vienna has assumed a pneumonic form; there are no boils, but each case is accompanied by high fever and blood spitting. It is said that this pneumonic type of the disease is the form which proves very fatal in eastern countries. Such is the history of this peculiar affair it is safe to assert that public attention will now be directed towards bacteriological laboratories, such as was never done before. Nor is it to be wondered at that this has occurred, for there is a carelessness and neglect plainly manifest in many laboratories of handling micro-organisms in infective diseases. The only wonder is that trouble has not been traced to them before. Undue familiarity, incompetent attendants, and an overzealous investigator may be the means of bringing death, disease and destruction in a community. It is so easy to be careful in the handling of these cultures that there can hardly be any excuse for the employment of the incompetent. It is stated that the excitement in medical circles in Vienna is tremendous. From what has been written and said upon the subject it is evident that it is the opinion of the doctors in Vienna that the plague is likely to spread in that city. Another significant indication of this apprehension is found in the fact that a temporary hospital, consisting of several detached sheds, was hastily erected. This, certainly, is to be deplored. We cannot help but sympathize with Dr. Müeller, although the seeming direct cause, since we learn that as soon as he learned the nature of the trouble, at the hazard of his life he destroyed every vestige of his experimentation. Let us trust that the end will come in an unexpected and happy manner. *The British Medical Journal* concludes a well-written editorial upon this subject in the following manner:

"Speaking from Dr. Müeller's point of view, reading his character by the light of what truly may be spoken of as his heroic, almost superhuman efforts, made on behalf of those who were suffering through little

fault of his, though because of the work that he had been carrying on, we believe that he would even have welcomed his own untimely fate could he have been assured that the lesson taught by this incident would be applied to the thousands of cases of infective disease which daily terminate fatally, and which are as preventable as, and certainly far more blameworthy than that which has excited such wide-spread consternation and called forth such heartfelt sympathy."

Desiring to give our readers the fullest expression on this deplorable affair, we quote the following from *The London Lancet:*

"There are people who, owing to carelessness on their own part or on that of others, are exposed to infection through the throat and lungs by the organisms which give rise to tuberculosis or diphtheria. Such stories as the tragic one from Vienna should make such people think. As most of the papers point out, and as our own information goes to show, Dr. Müeller behaved throughout with a heroism which fortunately is not rare in the medical profession; and it cannot but be felt, after reading the full accounts of what he did and what he suffered, mentally and physically, that his conduct gives a very direct lie to an insinuation which we have often been ashamed to read. He, at any rate, cannot be put down as amongst those who are brutalized by the carrying on of experimental work. A last word. Some will say that the responsibility of introducing into western Europe a disease which has not for some time invaded it in any other way is greater than that involved in watching the ravages committed by epidemic disease amongst us without making special efforts to cut short such diseases. This is a point, as Sir Roger de Coverley says, on which much might be said on both sides, but we have no doubt ourselves on which side right lies. We hope that whilst the teaching of this serious accident is taken thoroughly to heart by those engaged in carrying on experimental investigations attention will be drawn to the still wider question of the prevention of disease due to well-recognized micro-organisms, and that the interest which attaches to the deaths in Vienna may not distract attention from the need which there is for remembering that micro-organismal diseases which are at all times with us and in our very midst may for the most part be prevented by the adoption of fairly well-known and reasonable precautions." OUTTEN.

DANGERS OF BACTERIOLOGIC STUDY.

Members of our profession are often too ready to expose themselves to dangers which would appall an ordinary mortal. We all know of physicians who have contracted serious constitutional diseases by inattention to little details; and all of us can call to mind instances where, in great emergencies, physicians have risked their lives that the sick might be saved.

At the present time we are forcibly reminded of the danger attending bacteriologic study by the sad fate of Dr. Müeller, of Vienna, who contracted bubonic plague from carelessness in handling germs of this terrible disease. The plague did not stop with the death of the doctor, but several other cases developed and went on to a fatal termination. A great scare was caused in Vienna by these cases, but now the disease seems to have been checked. The lesson is that too much care cannot be exercised by laboratory workers in handling germs. J. M. B.

Cleft Palate, Etc. By W. ARBUTHNOT LANE, M. S. Duodecimo, pp. 278. London: The Medical Publishing Company, Limited, 22½ Bartholomew Close, E. C. No date. Price, 5s.

This volume comprises several essays, among which the following subjects are noticed: Cleft Palate; Treatment of Simple Fractures by Operation; Diseases of Joints; Arthrectomy, Hernia, etc. All are well written, and show the author to be a careful observer and skillful surgeon. The volume is profusely illustrated with cuts which aid the text.

A Pocket Medical Dictionary. By GEORGE M. GOULD, A. M., M. D. New edition, entirely rewritten and enlarged, including over 21,000 words. Price, $1.00. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1898.

This is a handy and most useful book.

A Clinical Text-Book of Medical Diagnosis. By OSWALD VIEVORDT, Professor of Medicine at the University of Heidelberg. Fourth American edition from the fifth German. Octavo, pp. 603. Price, in cloth, $4.00; in sheep, $5.00. Philadelphia: W. B. Saunders, 925 Walnut Street. 1898.

Vievordt's *Diagnosis* needs no introduction to our readers. For several years it has been accepted as the standard text-book, both in this country and in Germany.

The Medical News Visiting List for 1899. Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal grain leather, $1.25. Thumb-letter Index, 25 cents extra. Philadelphia and New York: Lea Brothers & Co.

A "Visiting List" is an indispensable convenience for the active practitioner. Its carefully adapted blanks enable him at once to note clinical details of every-day work, as well as charges and receipts, and to unburden his memory from what can better be carried on paper. It also furnishes him with a legal record necessary for the collection of delinquent bills. Prominent among the many books of this nature stands the

Medical News Visiting List. Its blank pages are arranged to classify and record memoranda and engagements of every description occurring in the practice of the physician, surgeon or obstetrician. The work opens with 32 pages of printed data of the most useful sort, including an alphabetical Table of Diseases with Approved Remedies, a Table of Doses, sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, a Diagnostic Table of Eruptive Fevers, and a full-page plate showing at a glance the incisions for ligation of the various arteries, an invaluable guide in such emergencies. The *Medical News Visiting List* is issued in four styles, adapted to any system of records and any method or keeping professional accounts. It is printed on fine, tough paper, suitable for pen or pencil and durably and handsomely bound in the size of a wallet for the pocket. When desired, a Ready Reference Thumb-letter Index is furnished which is peculiar to this list and an economizer of time.

Clinical Lectures on Mental Diseases. By THOMAS S. CLOUSTON, M. D., Lecturer on Mental Diseases in the University of Edinburgh. New (5th) edition. Crown 8vo, 750 pages, with 19 full-page colored plates. Cloth, $4.25, net. Philadelphia and New York: Lea Brothers & Co.

Mental diseases form a class singularly important to the general practitioner, not only from their wide diffusion and often insidious onset, but also from the advantage of early recognition and treatment, as well as from the dangers accruing to the patient and those about him from delay or neglect. Modern methods have abolished the madhouse and have armed the physician and alienist with means of relief or cure at least parallel with those in the other medical sciences. As an authoritative statement of the best psychiatry, suitable alike for the general physician and the specialist, this volume has won the recognition implied in the demand for five successive editions. The present issue has been enriched with no less than 19 full-page colored plates.

Warner's Soluble Pills.—As will be noted, Messrs. Warner & Co. are advertising to physicians: "If you would have uniform results from your prescriptions, *specify 'Warner's.'*" In these days of substitution and the mad rush to cut prices, inferior products, etc., it behooves the physician to secure for his patient the very best make of a remedy. To do this effectively, specification becomes an absolute necessity. When the name "Warner" is mentioned in connection with pills, it means that the remedy is a soluble active pill, one that can be relied upon with the same success that has attended their prescription by the profession for the last forty-two years. Therefore, the recommendation to specify "Warner" is well taken and means much. Besides, Messrs. Warner & Co. have decided to bear the entire war tax in connection with their entire pill list, and will not increase the price to cover revenue stamps.

THE ST. LOUIS ACADEMY.

The St. Louis Academy of Medical and Surgical Sciences has elected the following officers for the next year:

President, Dr. George C. Eggers; Senior Vice-President, Dr. J. C. Murphy; Junior Vice-President, Dr. J. C. Spohn; Secretary, Dr. James Moores Ball; Treasurer, Dr. Emory Lanphear; Orator, Dr. A. H. Ohmann-Dumesnil; Librarian, Dr. George F. Hulbert.

Meetings are held every Tuesday evening, and much good work is being done by this society, which one prominent physician describes as "the only ethical medical society in St. Louis."

LITERARY WORK OF THE ACADEMY.

Few of us realize the amount and kind of literary work done by the Academy. Not to speak of the regular program, members of the Academy find time to contribute much to the literature of the profession. Four of the Fellows edit medical journals, the journals being the *St. Louis Medical and Surgical*, *The American Journal of Surgery and Gynecology*, *The St. Louis Medical Gazette*, and the TRI-STATE. Two of the members are authors of accepted text-books: Dr. A. H. Ohmann-Dumesnil being the author of an excellent treatise on dermatology; and recently Dr. G. M. Phillips has written a clear and masterful work on genito-urinary surgery. Other members are at work on books which will appear in a few months.

Death of Dr. Louis Bauer.—Dr. Louis Bauer died in New York, November 5th. He was a noted figure in three countries: Germany, England and the United States. Much of his life was passed in St. Louis. He was the founder and, for many years, dean of the St. Louis College of Physicians and Surgeons. His best literary work was a treatise on Orthopedic Surgery, which appeared in English and German editions. While living in Brooklyn he was one of the founders of the Long Island Medical College. Dr. Bauer was a man of remarkable brain and will-power.

Major Summers.—Major Thomas Osmond Summers, a surgeon on the staff of General Wood, addressed the St. Louis Academy of Medical and Surgical Sciences on November 8th, and described in graphic language the battle of Santiago and the condition of our troops in Cuba. The Major expects to return to Santiago in the near future.

Removed.—Dr. A. F. Dresel has removed from Sedalia, Missouri, to Atchison, Kansas.

ABSTRACTS.

Some Observations on Brain Anatomy and Brain Tumors.—Dr. William C. Krauss, of Buffalo, read a paper at the ninety-second annual meeting of the Medical Society of the State of New York, Albany, January 25, 1898, with the above title.

He called attention (1) to the difficulty in remembering the gross anatomy of the brain, and (2) to the almost universal presence of optic neuritis in cases of brain tumor.

He attempted to overcome the difficulty in regard to the anatomy of the brain by formulating the following rules, which are somewhat unique and original, and at the same time easily remembered:

Rule of Two. 1. The nerve centers are divided into two great divisions: (1) encephalon, (2) myelon. 2. The encephalon is divided into two subdivisions: (1) cerebrum, (2) cerebellum. 3. The cerebrum, cerebellum and myelon are divided into two hemispheres each: (1) right, (2) left. 4. The encephalon is indented by two great fissures: (1) longitudinal, (2) transverse. 5. Into these two great fissures there dip two folds of the dura: (1) falx cerebri, (2) tentorium cerebelli. 6. There are two varieties of brain matter: (1) white, (2) gray.

Rule of Three. 1. There are three layers of membranes surrounding the brain: (1) dura, (2) arachnoid, (3) pia. 2. Each hemisphere is indented by three major fissures: (1) sylvian, (2) rolandic or central, (3) parieto-occipital. 3. Three lobes, frontal, temporal and occipital, on their convex surface are divided into three convolutions each: superior, middle and inferior, or first, second and third. 4. There are three pairs of basal ganglia: (1) striata, (2) thalami, (3) quadrigemina. 5. The hemispheres of the brain are connected by three commissures: (1) anterior, (2) medi, (3) post-commissure. 6. The cerebellum consists of three portions: (1) right, (2) left hemisphere, (3) vermes. 7. There are three pairs of cerebellar peduncles: (1) superior, (2) middle, (3) inferior. 8. The number of pairs of cranial nerves, in the classifications of Willis and Sommering, can be determined by adding 3 to the number of letters in each name, that of Willis making 9, and that of Sommering making 12 (or the name containing the more letters has the larger number of pairs of nerves, and *vice versa*). 9. The cortex of the cerebellum is divided into three layers of cells: (1) granular, (2) Purkinje's cells, (3) a molecular layer.

Rule of Five. 1. Each hemisphere is divided externally into five lobes, of which four are visible: (1) frontal, (2) parietal, (3) temporal, (4) occipital; and one invisible, (5) insula (Isle of Reil). Roughly speaking, the visible lobes correspond to the bones of the cranium; that is, the frontal lobe is underneath the frontal bone, the parietal lobe beneath the parietal bone, etc. 2. The brain contains five ventricles, of which four are visible: the right and left, or first and second, the third and the fourth; and one invisible, the fifth, or pseudo-ventricle. 3. The cortex of the brain contains five distinct layers of ganglion cells.

Studying carefully a hundred cases of brain tumor in which an ophthalmoscopic examination had been made for the presence or absence of choked disc (optic neuritis), Dr. Krauss announced the following conclusions:

1. Optic neuritis is present in about ninety per cent. of all cases of brain tumor.

2. It is more often present in cerebral than in cerebellar cases.

3. The location of the tumor exerts little influence over the appearance of the papillitis.

4. The size and nature of the tumor exerts but little influence over the production of the papillitis.

5. Tumors of slow growth are less inclined to be accompanied with optic neuritis than those of rapid growth.

6. It is probable that unilateral choked disc is indicative of disease in the hemisphere corresponding to the eye involved.

7. It is doubtful whether increased intracranial pressure is solely and alone responsible for the production of an optic neuritis in cases of brain tumor.—*The Philadelphia Medical Journal.*

Sulphonal Poisoning.—Wien (*Berl. klin. Woch.*, September 26, 1898) relates a fatal case of subacute poisoning in a woman, aged thirty-two, suffering from paranoia. The patient received mostly three doses, each of 0.5 g., at intervals of an hour and a half on each of thirty-one days, with occasional intermissions. The urine was examined daily, and the patient had been treated previously with about the same doses with no ill effect. When the sulphonal was discontinued the patient had become quiet, but this was not the result of any sulphonal narcosis. Her general condition was good. Thirty-six hours later the symptoms of sulphonal poisoning appeared. They consisted at first of gastric symptoms, with pain and vomiting, and later paralysis and hæmatoporphyrinuria were noted. It appears to the author probable that the poisoning was due to a cumulative action. Besides the ataxia there was paralysis in the arms and legs, probably due to a peripheral lesion. A notable fact in this case was the late appearance of the hæmatoporphyrinuria, which occurred eight days after the onset of the intoxication symptoms. Albuminuria and other evidence of a toxic nephritis appeared later. The pulse-rate fell towards the end to sixty-eight as a result of changes in the myocardium. At the necropsy a toxic nephritis and cystitis were found. The heart muscle showed degenerative changes and the pericardial sac contained an excess of fluid. The author maintains that the great danger in sulphonal poisoning lies in the irreparable changes found in the heart. In the stomach there were small hæmorrhagic erosions, and the organ presented an hour-glass contraction due to an old ulceration. Nine-tenths of the cases of fatal sulphonal poisoning have occurred in women. Although the number of cases of poisoning by sulphonal is small considering the frequency with which it is used, yet precautions must be taken. The use of this agent must be as limited as possible, and intermissions of even four or five days are too short. The author thinks that when symptoms of poisoning have already appeared, transfusion—or, failing that, infusion—of saline solution should be tried. Camphor should be used in

case of the least threatening of cardiac failure. Efforts should be made to promote the excretion of the sulphonal by diuresis, etc.—*British Medical Journal.*

Hypnotic Insulation.—An odd idea has been conceived by a New Jersey man who happens to have a smattering of electrical knowledge. He recently brought a man into court on the charge of having obtained money from him through hypnotic influence, but did not succeed in convincing the judge of the justice of his contention. He maintains that the undue mental suasion is still being brought to bear on him, and, as the courts will not protect him, he is going to look after himself. His proposed resource is to diet himself on rubber, and thus "insulate" his mind against the pernicious currents which, he claims, pass from that of his friend, in the same way that a rubber insulation will prevent the passage of electricity. He has had rubber worked up into an approximation of an edible form, and exhibits to his friends the pellets of it he carries in his pocket, which he says he shall swallow according to a daily allowance. It is said that the victim of this queer confusion of ideas is quite serious in his intention. It is difficult to imagine how rubber can be so transformed, even in the most skillfully-compounded "gum," to be taken inwardly without injury, and the villagers among whom the experimentalist lives are awaiting the next developments with interest. The situation recalls an incident which happened a few years ago in a forest in British Guiana. A traveler, following the custom of the natives when far from water springs, cut one of the "lianas," or withes, which hang down from the branches of the high forest trees, and from which a considerable quantity of clear, sweet water is usually drawn, which is perfectly good to drink. To make the drink more palatable, however, he poured into his calabash-cup a quantity of rum, and, letting the contents of the withe run into the cup, stirred the mixture together and drank it off. He was soon taken with alarming pains, and in two hours he was dead. Instead of a "water withe" he had cut a "rubber withe," the juice of which, while clear as water, is simply rubber in solution, and this, on being acted upon by the alcohol, congealed in his stomach.

Puericulture.—Professor Pinard, in his address at the Gynæcological Congress, held at Marseilles, stated that no city except Paris is so well provided with hospitals. He referred to a new science termed "puericulture," which, he says, has been called into existence, and is worthy of the greatest attention from public authorities. Poor women about to become mothers should be protected from privations and suffering in order that they may bring forth strong babies and avoid premature births. This "child culture," Professor Pinard considers, should be a matter of study for both parents before the mother becomes pregnant. All medical men are, according to Dr. Pinard, "defenders of the human race." To prevent hereditary influence, treatment of the parents may be necessary before marriage. It is the duty of medical men to pay attention to this question. —*British Medical Journal.*

Bolognini's Symptom in Measles.—A. Köppen (*Centralbl. f. inn. Med.*, July 2, 1898) draws attention to Bolognini's observation in measles, that

when both hands are placed on the abdomen with the fingers directed downwards, and an alternating and gradually increasing pressure is exercised, a slight rub can be felt, as if two uneven surfaces were moving over each other. This was noticed early by Bolognini in 198 out of 200 cases of measles, where there were no signs of peritoneal irritation. Bolognini attributes it to a fleeting peritoneal exanthem. In 316 cases of measles in which 343 examinations were made, Köppen found this sign present 154 times. He compares the sensation, however, to the crackling felt in subcutaneous emphysema. It could be obtained only when the small intestine was manipulated between the hands. The author has never found it present in healthy children, and but rarely in those suffering from intestinal affections. He concludes that the symptom is very frequent in measles. but that it is not pathognomonic, and that it arises from alteration in the intestinal contents.—*British Medical Journal.*

Diphtheria and Coryza.—Grenet and Leoné (*Arch. de Méd. des Enfants*, August, 1898) report on a series of experiments conducted by them to ascertain the connection of various cases of purulent coryza, unaccompanied by false membrane, with true diphtheria. The greater number of cases were in children under a year old attacked, only as far as could be ascertained, by coryza, but some of them manifesting other signs; for example, of hereditary syphilis, gastro-enteritis, or convalescents from measles. They found in a large number of cases a very small bacillus, smaller than the short diphtheria bacillus, and often curved in form. It was found to grow longer when cultivated in suitable media, but never attained the dimensions of the large diphtheria bacillus. Inoculated into the rabbit, the bacillus proved fatal eight times out of sixteen cases in a period varying from thirty-six to sixty hours. Inoculation experiments enabled the authors to distinguish between two varieties of bacilli found in the nasal cavities: (1) A bacillus of which either the pure culture or the toxin proved fatal, giving rise in the animals inoculated to lesions entirely analogous to those produced by the classic variety of the diphtheria bacillus. (2) A bacillus very difficult to distinguish from the first variety, having the same essential form and character, but which was not fatal to the animals inoculated. The two varieties were met with at times in the same subject. It is therefore possible to find in the nasal cavities of children suffering from a coryza of apparently benign character a bacillus presenting all the characteristics of diphtheria bacillus, and in some cases of great virulence. The existence of this bacillus explains the appearance of diphtheria in children who have not been in contact with any known source of contagion, and justifies the bacteriological examination of all cases of chronic purulent catarrh in hospitals.

Doctors don't differ as to the merits of Dr. Koonse's cure for opium, morphine and similar diseases. Tested by more than 2000 physicians, and the unanimous verdict is "no failures." The only positive, pleasant and absolutely safe cure. Send stamp for booklet "How Cured," clinical reports, etc. DR. KOONSE, La Fayette, Ind.

Blackwater Fever and Hæmoglobinuria.—Dr. R. U. Moffat, principal Medical Officer Uganda Protectorate, writes to the *British Medical Journal* (No. 1969, September 24, 1898):

The recently expressed opinion of Professor Koch, that hæmoglobinuria (blackwater fever) is only another name for quinine poisoning, is one calculated, I am afraid, to do much harm. Such, at least, is my opinion, believing as I do that with quinine, and quinine alone, can we combat the disease with any hope of success.

Speaking with all due humility and respect, I must confess that I think Professor Koch should have kept his theory to himself until he had absolutely proved its truth beyond a doubt.

It is difficult enough at all times to get patients to take quinine properly. Any one who has had much experience with malarial patients has heard such objections as these: "It (quinine) makes me deaf," "gives me a head," "upsets my stomach," "nasty taste," etc.

A new terror now awaits the unfortunate medical man when he tries to treat his patients with quinine. Koch's theory will be thrown in his teeth, and should his patient die after taking quinine and developing blackwater fever, the doctor will have to incur the odium of being the cause of the fatal termination. It is a subject of the greatest interest to all those exposed to malaria, and I may mention that almost every man whom I met in East Africa during the last few months questioned me eagerly about it. The pernicious results of Professor Koch's theory on the lay mind are already manifest. One man stationed in a very unhealthy part, and much troubled with fever, informed me that in future he intends to have nothing to do with quinine. His future history will be interesting; and it is comforting, any way, to think that his folly may, perhaps, be of service in the cause of science, since he is practically offering his constitution as an illustrative case. Two leading London papers have had articles on the subject, so that Professor Koch's theory is being spread widely. This, to my mind, is a serious thing. Professor Koch may be right in saying that quinine poisoning causes hæmoglobinuria. I do not possess sufficient knowledge to criticise that statement. This much I will say: that after seven years in Eastern Equatorial Africa, during which time I have treated many hundreds of cases of malaria, I have never seen a man die of fever when quinine was given properly and early in the case. The fatal cases, whether complicated with hæmoglobinuria or not, have all been those in which for some reason quinine had not been administered or was given in very small doses, or else resorted to only when the case was practically hopeless.

Of blackwater fever I have seen but little, for our European population in Uganda has up to now been small, and as far as my experience goes the disease does not occur among natives. Out of nine cases of blackwater fever which I had actually treated myself, two were fatal: in both the administration of quinine was neglected until too late. All the cases which recovered were treated with heroic doses (thirty grains in twenty-four hours) and the attack lasted four days, the hæmoglobinuria subsiding gradually. In the other cases in which much larger doses were administered (sixty to one hundred and twenty grains in twenty-four

hours) the hæmoglobinuria only lasted from twenty-four to thirty-six hours, and stopped quite suddenly.

In ordinary cases of malignant tertian fever I have pushed quinine until I myself had begun to think that the limit of safety had been reached, and that the patient was well-nigh poisoned with the drug, but never in such cases have I seen hæmoglobinuria supervene. Speaking in the light of much experience, I can only say that my humble opinion is that there is only one treatment for malaria—quinine, more quinine, and yet more quinine.

Euphthalmine as a Mydriatic.[1]—Dr. Winselmann, of Berlin, says: The fact that the effects of atropine last for eight, sometimes ten days, makes this valuable mydriatic valueless for simple diagnostic purposes. We have, therefore, looked for some time for a substitute which is free from the disadvantages of atropine. The essentials of an ideal mydriatic for diagnostic purposes are:

(1) That it dilates the pupil quickly and promptly.

(2) Does not cause an increase of the intraocular pressure.

(3) Does not influence the accommodation.

(4) Does not cause, when used in the ordinary way, poisonous symptoms.

(5) Does not cause irritation of the conjunctiva and cornea.

(6) That its effect disappears in the shortest possible time.

As substitutes for atropine for diagnostic purposes cocaine, homatropine, and ephredin have been recommended. Of these cocaine is very unreliable, as in many cases it does not produce mydriasis at all; furthermore, in many cases it greatly disturbs accommodation, damages the corneal epithelium, and its effect may sometimes be observed for thirty-six hours and more, before the sight becomes again clear.

Homatropine has the disadvantage that *it* also greatly disturbs accommodation and increases the intraocular pressure; it cannot, therefore, be employed when there is a suspicion of glaucoma. The after-effects of homatropine may also last for thirty-six to forty-eight hours.

As to ephredin, I cannot mention any observation of my own, and shall therefore not take the same into consideration.

Schering's euphthalmine is said to fulfill the aforementioned conditions of an ideal mydriatic. I have made experiments with a quantity of this remedy on twenty-six eyes, using a five per cent. to ten per cent. solution.

I instilled in sixteen cases only one drop, in five cases after five minutes a second drop, in five cases after further five minutes, a third drop. Whether I instilled one, two, or three drops, the rapidity and the continuance of the effect remained the same; a marked difference, however, could be observed between the five per cent. and the ten per cent. solution. For instance, I instilled in four cases of the same person into one eye, a five per cent. solution, and into the other a ten per cent. solution, and I always observed in these cases, as well as on myself, that in the eye treated by a ten per cent. solution the beginning of mydriasis was six minutes earlier, and the maximum of the same nine minutes earlier.

[1] Klin. Monatsber. fuer Augenheilk, xxxv., 1898.

These figures agree exactly with the time observed in eyes of different persons. I found that when using a five per cent. solution, mydriasis began on an average after twenty minutes, and the maximum was reached on an average after thirty-two minutes; when using a ten per cent. solution, the effect could be noticed on an average in fourteen minutes, and the maximum after twenty-three minutes.

I would not attach any importance to these average figures, considering the small number of eyes which I had for my experiments, if the figures had considerably differed from one another; but seeing that the highest difference which I observed did not exceed two minutes, and the cases were treated entirely without selection, I believe I am entitled to accept these figures as being correct. When maximum mydriasis was reached there was always still a slight reaction to light, which disappeared entirely, only in nine to fourteen minutes afterwards; the contraction of the pupil, however, was so insignificant that it did not hinder the examination. Accommodation was hardly influenced, at least not to such a degree as to cause a disturbance of sight. In all cases during the whole time mydriasis lasted Schweigger 0.3 was read. I myself have read and written, in euphthalmine mydriasis, for about four hours, with very short interruptions, without experiencing the slightest painful sensation. In most cases the nearing point was advanced by about 2 cm., and in three cases by 3 to 3½ cm. In no case could I observe a change of acuteness of vision for distances.

The maximum of mydriasis—when there was no light reaction—lasted, as a rule, from three to three and a half hours; then the light reaction returned very slowly until, after about seven hours, mydriasis had entirely disappeared. I did not observe any other effects from euphthalmine; there were no irritations, neither conjunctival nor pericorneal, nor was the instillation accompanied in a single case by a sensation of pain.

I also could not observe any influence on the intraocular pressure; hence, I should use euphthalmine without hesitation in cases of suspicious glaucoma, should it be desirable for some reason or another to dilate the pupil.

The conditions of an ideal mydriatic, mentioned above, are fulfilled by euphthalmine, according to my experiments, as follows:

(1) The dilatation of the pupil appears, neither much quicker nor much slower than with the other remedies now used.

(2) The accommodation is so little influenced that it cannot be of any practical importance.

(3) It does not effect any change in the intraocular pressure.—*The Therapist*, August 15, 1898.

Neurasthenic Hunger.—Neurasthenic individuals sometimes experience peculiar attacks resembling fainting spells, with extreme weakness, pallor, vertigo, cold perspiration, weakness and trembling in the knees and a sense of heaviness in the head. T. Cenda (*Deutsche Medicin. Woch.*) describes one patient thus affected every afternoon toward night. He noticed that in many persons hunger accompanied the attacks, and, assuming that they were due to exhaustion from lack of food combined with auto-intoxication from food in the intestines which the neurasthenic

stomach had hastily passed along in a more or less undigested condition, found that he could cure them by having the patient eat something, and prevent them altogether by small frequent meals.—*Journal American Medical Association.*

Optic Neuritis in Typhoid Fever.—Since accurate observation has shown that in nephritis the optic papillæ may assume a condition identical in appearance with that met with in meningitis and brain tumor, it is of interest to note that typhoid fever may also be the cause of such changes as we have hitherto believed gross changes in the brain alone. C. Braine-Hartnell reports a case of typhoid in a lad of eleven years that pursued a fairly regular course for sixteen days, when inequality of the pupils developed and the ophthalmoscope revealed a marked double optic neuritis. Because of little diarrhœa, irregular temperature, absence of petechiæ, and presence of the optical symptoms, a diagnosis of meningitis was made. A post-mortem, three days later, disclosed typical inflammation of Peyer's patches and the solitary follicles, but absolutely nothing in the brain to explain the optic neuritis.—*British Medical Journal.*

Lactophenin in the Treatment of Insomnia in the Insane—Christiani (*Rif. Med.*, June 16, 1898, from *Il Manicomio Moderno Giornale di Psichiatria*, xiv., 2) has given lactophenin for insomnia in over two hundred cases of insanity with very good results. The dose given varied from one to three grammes, the remedy being administered in some sweet emulsion. Sleep that had all the characters of a natural slumber followed in a very short time, lasted from four to nine hours, and was not succeeded by any bad effects—no stupor or morning headache, and no digestive disturbances. Like most other hypnotics, it lost its effect after continued use, but after a short intermission could be used again with good results. The author used it in all kinds of mental cases, and in different physical conditions—for example, cardio-vascular, kidney and other diseases. He considers it quite safe and more generally useful—in insane subjects—than opium, chloral, trional, or any other hypnotic. As it has no taste or smell, it is not difficult to administer—*British Medical Journal.*

A Pleasant Method of Taking Medicine.—Warner's G. E. Salts afford a pleasant, effective method of taking a remedy. They are extremely palatable, rapidly effervescent, and reliable in their action. W. R. Warner & Co., of Philadelphia, manufacture a complete line, including sodium phosphate, bromo soda, aperient saline, etc., etc. They are to be relied upon.

God Save the Queen!—Professor Wilson, a leading light of Edinburgh University, recently wrote on the blackboard in his laboratory: "Professor Wilson informs his students that he has this day been appointed honorary physician to the Queen." In the course of the morning he had occasion to leave the room, and on returning found that a student had added to the announcement the words: "God save the Queen!"

JOHN H. ALLEN.

John H. Allen.—Few men ever attain to the esteem in which the subject of this sketch, Mr. John H. Allen, is held by all who know him. Though comparatively a young man, Mr. Allen has achieved a remarkable business and social success. As president and general manager of the Allen-Warren Drug and Surgical Company, of St. Louis, he is a power in physician supply and drug circles.

Born in Montoursville, Pa., graduated from the Philadelphia College of Pharmacy and associated for thirteen years with the wholesale and retail trade in the west has given Mr. Allen a national acquaintance. His ability as an organizer and executive officer was shown at the recent organization of the National Association of Retail Druggists, and by his unanimous election to the executive board.

Mr. Allen is also president of the St. Louis Apothecaries Association, an officer of the grand lodge of this State, Knights of Pythias, and a director of the Missouri division Traveler's Protective Association.

J. C. Brown.—"Doctor" Brown, as he is popularly known, general salesman for the St. Louis Physicians Supply Company, is an ardent admirer of the TRI-STATE MEDICAL JOURNAL and speaks enthusiastically of its pharmaceutical page.

The editor presents his compliments to "Doctor" Brown and notes with pleasure his kindly comment.

Mr. Chas. Caffal, manager for Judge & Dolph, is convalescing from his recent attack of nervous prostration.

Mr. Van Arsdale, representing the Wm. S. Merrell Chemical Company, was in the city during the week looking after the interests of his house.

Jno. P. Lowell is doing detail work among St. Louis physicians in the interest of T. A. Klipstein. (Note ad.)

Gustave Asche, representing the Troenner Malt Extract Company, has been flitting in and out of the local offices recently.

Pharmaceutical men generally attended the meeting of the Southern Illinois Medical Association at Cairo on the 17th and 18th of this month.

Dr. W. D. Hoeffken has leased the building at 412 to 414 South Sixth street, and will manufacture a line of pharmaceuticals, chemicals, etc.

THE FATHER OF HISTOLOGY, 1632–1723.

THE TRI-STATE
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The village doctor mounts his mare,
And speeds away, with bags and pills,
On mercy's errand; to cure the ills
Of many a child and woman fair.
Beloved physician, the poor man's friend,
When friends are few and rarely seen.

Low flies the hawk at eventide;
The cows are strolling homeward bound;
The leaden sky bespeaks a storm;
The woodland rings with barking hound;
The winter's here; while hunger's form
Stalks towards the poor man's house.

Across the fields and through the woods,
A short-cut quick to Jackson's farm,
Where lies the babe with injured arm,
And moans and cries in painful turns.
The doctor comes; the babe forgets its pain;
The lethal vapor has done good once again.

His mount regained, the doctor homeward turns.
The blinding storm, the howling blast,
Bedaze both man and beast.
The ship at sea with broken mast
Is no more helpless on that night
Than village doctor, always turning to the right.

And all night long, with ceaseless tread,
The old gray mare walked with the dead.
Man and beast were found next morn
Too late to hear the huntsman's horn.
"The doctor's dead! the doctor's dead!"
With accents low the people said.

And now there rests on wooded mound,
On top of hill in sacred ground,
The village doctor's noble soul,
"Poor Doc Jones," to fame unknown.

* * * * * * *

Recording angels wrote his name
Where yours and mine may ne'er be seen.

JAMES MOORES BALL.

FAITHFUL UNTO DEATH.[1]

COLONEL WILLIAM WATKYNS, of Tuscaloosa, Alabama, has a number of peculiar traits of character, some of which are greatly to his worldly advantage, while others not only tend to subject him to criticism, but are at times a source of embarrassment. The peculiarity of my friend Watkyns that particularly concerns us at this writing is, or rather *was*, of the latter class. He has recently been cured of this particular idiosyncrasy—as we doctors call all forms of physical, moral, and intellectual blamed nonsense. The cure was brought about in the most paradoxical fashion by an accidental dose of homœopathic medicine in decidly allopathic quantity.

The principle of *similia similibus* implies that a dog-bite is best cured by hair from the hide of the culprit that inflicted the injury. Whether this be true or not, I am in a position to assert that a morbid fondness for dogs can be cured by an overdose of canine society. I don't know what my Chinese friends have to say on the subject, but there seems to me to be nothing extravagant in the theory that there *is* such a thing as a surfeit, even where a fondness for pets is concerned.

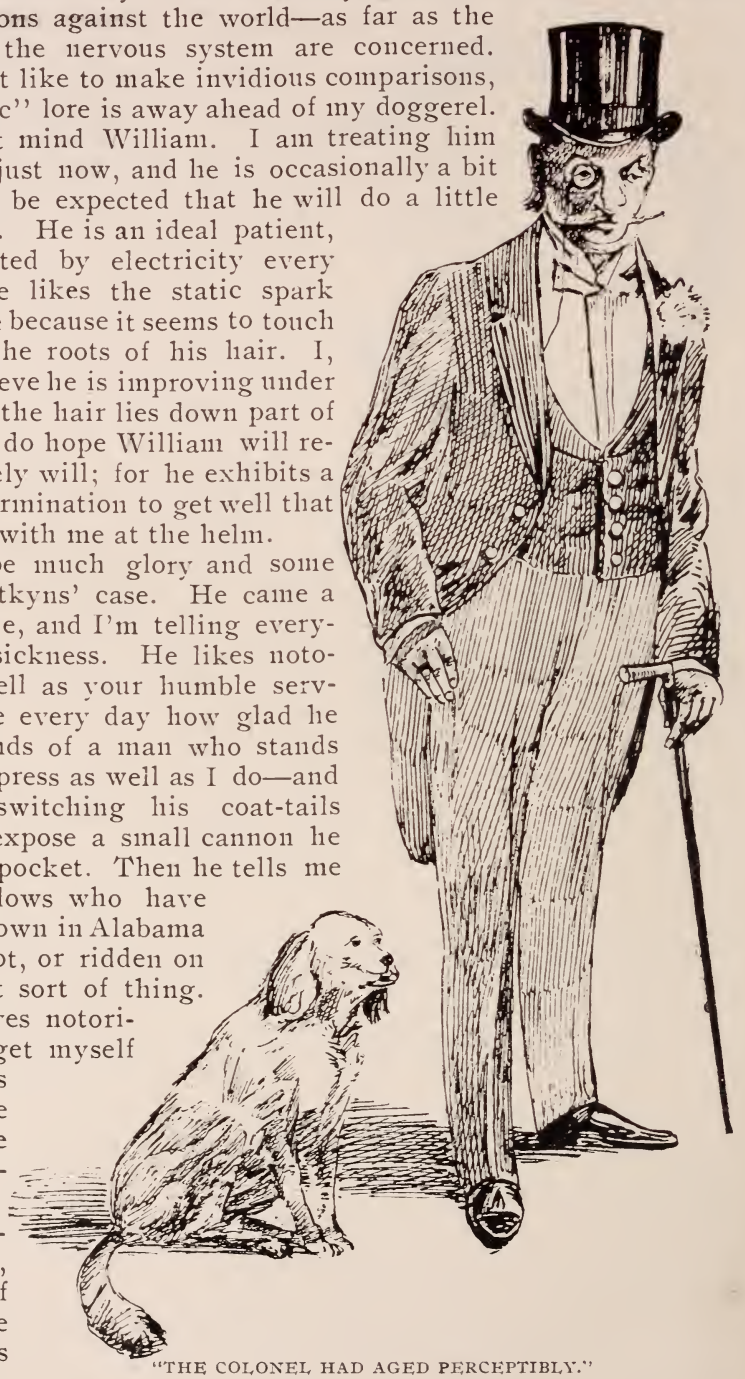
Now, there is nothing intrinsically harmful about a weakness for dogs, providing it be indulged in an intelligent, discriminating fashion. To be sure, one need not be an expert in "dogology," but he should at least be something of a *connoisseur* before he cultivates canine society to any great extent. As for owning a dog, the man who knows not the beast had better not start any private bench shows. I give this warning, not because I care a picayune who keeps dogs, or whether the dogs have pleasant homes and intellectual surroundings or not, but because I am a doctor—and consequently philanthropic.

For the sake of humanity at large, I must say to all and sundry that the "dog fever" is a very dangerous disease—not on account of the liability

[1] In the palmy days of the far-famed Whitechapel Club, one of the "Immortals," long since gathered to that bourne where goeth all good *raconteurs*, was wont to relate the little incident whereon this story is based. My lamented friend said he didn't care to use the incident, so I appropriated it. It has grown under my tender care like a snowball rolling down hill and—here you are. I have told the story so often that I sometimes fancy the original yaller dog was mine. The faithful Beeswax is mine, anyhow. My conscience was eased somewhat by a little yaller dog belonging to a friend of mine, who—the dog, you know, not the friend—retrieved a cannon cracker last Independence Day, and went to join the girl who fed the fire with gasoline. I am further comforted by the ingenuous manner in which F. Hopkinson Smith, in "Colonel Carter of Cartersville," has stolen the Irishman's "one-legged goose," which in turn was stolen from Bocaccio. The stork in any other garb than goose feathers might have been forgiven. Colonel Watkyns is mine own; and Moyer is so good natured, and loves me so well, that I fear not his wrath. G. F. L.

to a complicating hydrophobia, but because there are worse complications than that dread disease. My old friend Watkyns tells me that he would back my medical opinions against the world—as far as the effects of dog on the nervous system are concerned. He says he doesn't like to make invidious comparisons, but my "dogologic" lore is away ahead of my doggerel. But then, I don't mind William. I am treating him for neurasthenia just now, and he is occasionally a bit erratic, so it will be expected that he will do a little growling at times. He is an ideal patient, and is being treated by electricity every day. He says he likes the static spark electrical machine because it seems to touch the right spot—the roots of his hair. I, myself, really believe he is improving under the treatment, for the hair lies down part of the time now. I do hope William will recover, and he surely will; for he exhibits a grim, dogged determination to get well that is bound to win—with me at the helm.

There will be much glory and some maravedis in Watkyns' case. He came a long way to see me, and I'm telling everybody about his sickness. He likes notoriety almost as well as your humble servant. He tells me every day how glad he is to be in the hands of a man who stands in with the daily press as well as I do—and then he keeps switching his coat-tails around so as to expose a small cannon he carries in his hip pocket. Then he tells me stories about fellows who have tried to be funny down in Alabama and have been shot, or ridden on a rail, and all that sort of thing. Yes, Watkyns loves notoriety, and I shall get myself interviewed on his very remarkable case bye-and-bye—after he has returned home.



"THE COLONEL HAD AGED PERCEPTIBLY."

I might remark, in passing, that I dreamed of Watkyns' gun the other night. It's an awfully big pistol, and looks like one of those revolving things on wheels that the militia use—Gatling guns, are they not? I had been eating some hot Frank-

furters and potato salad down at a German restaurant late that evening, and my friend Moyer, who happened to be along, insisted on my drinking some Weiss beer. This was bad enough; but he piled Pelion upon Ossa by making me drink the stuff in the same way he did. He drank two quarts at a time out of an enormous goblet which, he said, was kept at that restaurant especially for him. That was a lie; for I saw that same glass in the restaurant window yesterday. It had a little submarine castle, some green moss, two frogs, a mud turtle, and ten gold-fish in it, besides some water and gravel.

Well, I got home all right by paying two fares—the Weiss beer went as extra baggage—and retired, like the peaceful, sober old doctor that I was—and am. I soon fell asleep—and then my troubles began. Moyer

"BEESWAX SHOWS ATTACHMENT FOR NEGROES."

and I were having a quarrel. This alone was enough to horrify a man of my tender sensibilities, for I love Moyer. Even when he asks me to dinner, and hands me the check to settle, my affection does not wane. Greater love than this hath no man. Moyer challenged me to fight a duel, as he often does at dinners, and, taking the challenge literally, I looked up Watkyns and borrowed his gun. Moyer didn't tremble as we faced each other—he had the deadlier weapon of the two—a hypodermic syringe with a rusty needle loaded with "bichloride of gold," or something of the sort. He was going to see a case after dinner; he's a nerve specialist, you know—he has a corner on the "nerve" market, too.

Somebody gave the signal to fire, and Moyer disappeared, while in his place appeared a narrow rim of broadcloth with just a little meat

scattered upon it here and there. The bullet had gone through my dear, old friend just as the clown at the circus goes through a paper-covered hoop, and with similar results. Just after I fired it began to rain heavily, and I was wishing I had my umbrella with me, and regretting that I hadn't pumped the Weiss beer out of my friend's stomach before I fired, when I awoke with a start!

Yes, Watkyns has a great gun.

Pshaw! here I am, drifting away from Watkyns' remarkable case. Well, I never *was* very warlike, and to dream of shooting somebody, and especially your best friend, is conducive to absent-mindedness.

I don't know when Watkyns became the owner of Beeswax, but it must have been many years ago. It is some years since my last visit to Alabama, and Watkyns owned him then. Inasmuch as Watkyns had already accomplished wonders in training the animal, it is to be inferred that he had owned him for some time.

"A NAT'YAL BO'N RETRIEVER."

When I was first introduced to Beeswax, I marveled much at his name, but Watkyns told me that the appellation had been bestowed upon the animal because of his faithfulness. His "stick-to-it-ive-ness" was proverbial throughout the county—indeed, it was alleged by certain disinterested friends of Colonel Watkyns that Beeswax was the original youthful canine who adhered so closely to the foot of a treeful of coons, that the persistency which he exemplified has gone down into history as that quality which impels a man to stick as closely to the object of his ambition "as a pup to a root."

Beeswax was no ordinary dog—even the most superficial observer could see that. He had a glimmer of intelligence in his somewhat obliquely set eyes that was suggestive of a more than usual degree of mental acumen. And those eyes were so full of kindly sympathy, so expressive of the tender, struggling emotions of a yearning soul which fain would free itself from its unworthy surroundings and rise superior to the mundane clay wherein it was imprisoned. Perchance, those soulful, yearning eyes had already penetrated the mystic veil of futurity and had seen—but I am anticipating my story.

The genealogical tree of our canine friend was shrouded in obscurity—haughty, ambitious, arrogant pride of birth ne'er disturbed his pleasant waking hours nor clouded his sweet and rosy dreams. For aught any one knew, Beeswax was a mere accident—but as accidents sometimes occur in families of the bluest blood, it is only fair to assume that he was of aristocratic lineage. To be sure, many of his relations had

developed commercial instincts and had taken an active part in such industries as the manufacture of sausage, but this, in my opinion, was no fault of his. Envious critics had asserted that Beeswax was a disappointed coon dog, and had been brought up in a negro family of rather shady character, but in my estimation this story was a canard. He was quite fond of negroes, it is true, but his affection for them manifested itself by a *penchant* for gnawing their legs rather than by any special fondness for their society. But this disposition to become attached to the shiftless negroes about town was probably due to defective early education, rather than a natural indifference to social obligations.

I have been wondering, for some time, how I could describe Beeswax and do him justice. It might have been practicable to analyze him and describe each of his component parts separately, were it not for the fact that his composition was too simple to give full scope to my descriptive and imaginative faculties. He was composed mainly of appetite, hair and teeth. Appetite was the principal ingredient, and was most excellently arranged upon the inside of our canine friend, constituting by far the larger part of his bulk. The hair was affixed to a thin layer of hide which served as a sort of water-proof limiting membrane, a vitalized mackintosh, as it were, which was evidently designed to keep the animal's appetite from spreading. This was a wise provision of nature, for had Beeswax's appetite ever become epidemic, then, indeed, would have come the years of the lean kine unto Egypt.

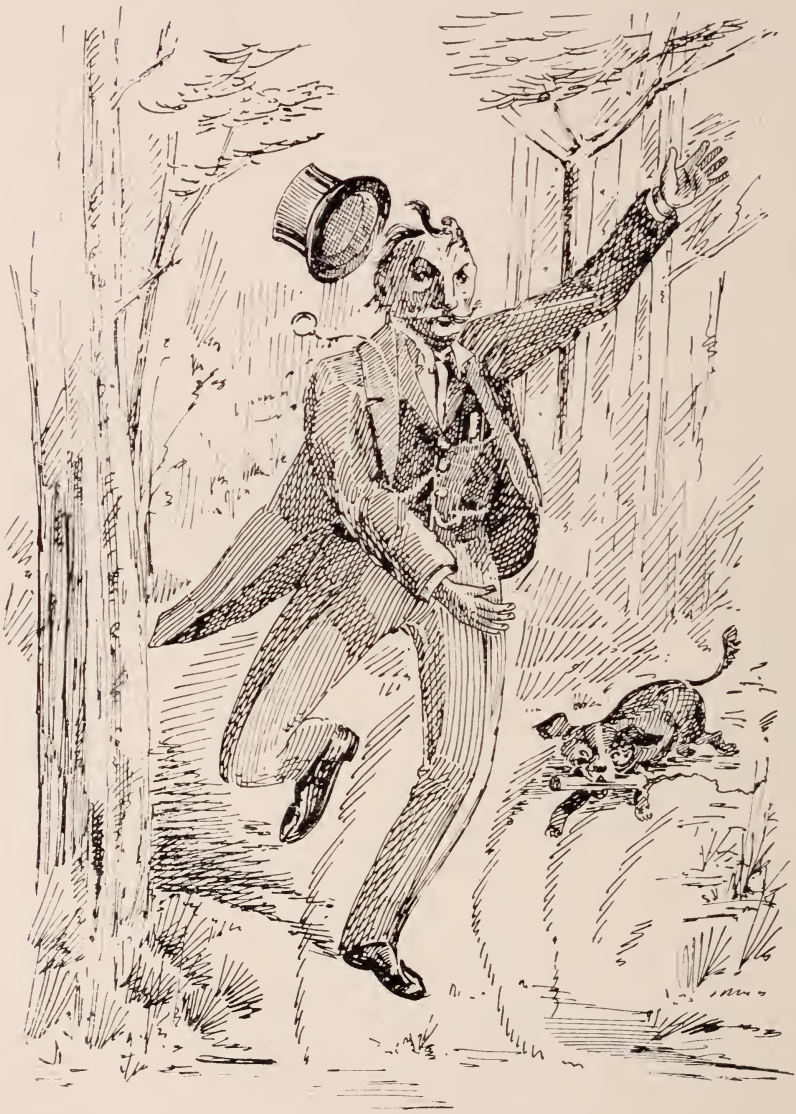
Beeswax's hair was a little short on fiber, but it was "long" on color. It was of that muddy, greenish-yellow hue so suggestive of perpetual jaundice, which has individualized the "yaller dorg" ever since the animals were classified by Noah. But Beeswax was of a philosophic turn of mind, and, being also something of a genius, did not grieve much over his cosmetic defects—genius is ever indifferent to externals and rises far above the frills and furbelows of conventionalism. Why, I don't believe that dog ever combed his hair in his life.

Beeswax was one of those characters whose true worth is never appreciated by the public. If he had even been a fighter, it would have been something, but he was not of a warlike breed. His ancestors had been dogs inclined to pleasant pastoral pursuits rather than to the terrors of grim-visaged war. Killing the innocent mutton as it gamboled o'er the lea, appealed to their sense of propriety and accorded with their instinct of self-preservation, while the bloody scenes of the "pit" and the snarling of the wolf were disquieting to their delicate sensibilities. A public that adores a Corbett and ignores a Darwin will have none of such weak and vacillating natures as Beeswax seemed to possess. And yet, Beeswax was a hero, to the manner born, and time was to vindicate him—terribly, sadly, completely.

However much the ignorant public may have disliked Beeswax, everybody acknowledged that he was a faithful creature. He was ever at his master's heels, and the Colonel often said that that dog loved him so much that he really believed the animal would willingly die for him. And some heartless persons hoped that the Colonel's faith in the affection of his dog might soon be proven. Beeswax had such a habit of baying madrigals to the moon. Being of his own composition, those who had the

opportunity of listening to them were somewhat envious, and so they hoped he would ere long give full sway to his exalted emotions and—die for Watkyns.

The Colonel was not pleased with the coldness and indifference of his fellow-townsmen toward Beeswax. "Why, d—n it, suh," he was wont to



"HE COULDN'T BEAR TO STAY."

exclaim, "thet pup, suh, comes of sportin' stock, by gad, suh! He is a nat'yal bo'n retriever, suh!"

Now, the Colonel's neighbors were somewhat skeptical. They admired sporting proclivities, it is true, but they doubted the reliability of Colonel Watkyns' judgment on the breeding of Beeswax, so they winked

at each other and smiled in derision. Whereat the Colonel waxed wroth: "D—n it!" he said, "I'll show 'em! Why, thet pup with a little trainin', suh, can beat 'em all. Ef he can't, yo' all kin jest break me!" And then he proceeded to train Beeswax most assiduously.

Beeswax may not have been a born retriever, but Colonel Watkyns was certainly a born trainer, for, in a little while, that dog was the greatest retriever ever seen in the State of Alabama. "Why," said the Colonel, "thet pup 'll get right up in the middle o' the night to go and retrieve; yo' hear me shoutin'! Yo' never saw anything like it, suh!"

But there are retrievers and retrievers. Beeswax developed into the kind of retriever that persists in enacting the *role* of a common nuisance. He became a kind of kleptomaniac, his life being devoted to picking up anything that came handy—providing he could lift it—carrying the object to his master, laying at the feet of the latter, and wagging his tail in a mute appeal for approbation. And the dear old dog was by no means fastidious in his tastes—almost any old thing would do to exercise his peculiar talents upon. He was especially given to dead rats and the like obsolete things. He was very strong on the scent, hence this peculiarity was not particularly exhausting to his intellectual powers. But the Colonel called his antics "retrieving," all the same.

Colonel Watkyns was quite triumphant over his success in training his pet, and grew fonder of the animal than ever. Wherever he went, Beeswax accompanied him—Mary and her little lambkin could not have been closer companions. No matter what the occasion, the dog was never left at home. This was wise, for Watkyns knew the feeling of the neighborhood toward his four-footed friend.

The Colonel was engaged in the mining business some distance from Tuscaloosa, and was in the habit of making occasional trips to inspect his property. It so happened, a few weeks since, that the superintendent of the mine notified him that a strike was in progress and that most of the hands had left. A few new men had been employed, but things were not going well, and he thought the owner ought to visit the mine and get a personal knowledge of the situation—a view in which the Colonel thoroughly agreed. He therefore went down as requested. The frolicsome Beeswax went along, as usual.

The green hands were a decided failure. The nearest any of them had come to making a hit in the mining business, was to blow off several fingers while preparing a blast, the day before the Colonel's arrival. This suggested an idea to the latter gentleman—he would give the new men some personal instruction. Calling one of them to him he said, "Now, my friend, if yo' will come with me, suh, I'll show yo' how to blast properly, suh." The man humbly followed the Colonel, Beeswax friskily bringing up the rear.

Arriving at the field of operations, Watkyns proceeded to prepare a blast. Having drilled the necessary hole in the rock he inserted a cartridge of giant powder and said: "Yo' will observe, suh, thet I lay the explosive in the hole rather loosely. Many accidents are due to the cartridge being used too roughly, suh. Yo' will also notice thet I use a long fuse, suh. Thet will give yo' plenty of time to escape, suh."

The fuse having been lighted, both teacher and pupil ran to shelter. The Colonel took refuge behind a large tree some distance away, and waited in nervous expectation for the anticipated explosion.

In the excitement of the moment our friend had forgotten his dog. Suddenly recollecting that his pet was at his heels when he lighted the fuse, he peered anxiously around the tree in the direction of the blast. Much to his relief he saw Beeswax coming toward him. The animal had something in his mouth that he was carrying as gingerly as though fully realizing its value.

"Ah!" said the Colonel, "what a faithful creature he is. Why, he's the greatest retriever in the whole—." Just then he noticed a film of bluish smoke that appeared to be issuing from Beeswax's mouth. A few seconds later and he distinctly heard a sizzing noise that made his hair stand on end. True to his training, Beeswax was retrieving; and faithful animal that he was, was coming to lay the stick of giant powder at his dear master's feet!

Now, Colonel Watkyns was a brave man, but he was also tender-hearted and he couldn't bear to witness the accident that was soon likely to happen to his beloved dog. To be sure, he believed in long fuses, and had prepared the one in question himself; but one cannot always stand by his opinions, so the Colonel stood not upon the order of his going, but literally struck out for tall timber. The woods were handy, and to them he flew for safety! He didn't look around to see if the dog was following him—it wasn't necessary. He knew Beeswax too well to doubt his loyalty, and, besides, he could hear the sizz of that remorseless fuse.

As the Colonel ran he thought of Frankenstein, and was willing to bet that Beeswax could give that gentleman's monster cards and spades. He also experienced a change of heart regarding long fuses. But there was no time for serious reflection—the dog was perilously near, and the Colonel not especially accomplished as a sprinter. He finally reached the timber, however, and then began a dodging match that doubtless has never been equaled.

The exact extent of territory traversed by the Colonel in his mad flight will never be known. *He* says that it was seventeen miles—or acres, I forget which. He ran twice as far as Beeswax did, for the latter had a keen eye for short cuts.

Such a wild, hilarious time as the Colonel had! Swinging around trees, tripping over logs, tangling himself up in wild grape vines, wading through bogs, away he went, while almost within dynamite range, on came the faithful retriever, his burden sizzing louder and more ominously every minute.

The Colonel's eyes were wild and staring, his breathing sounded like a steam calliope, cold sweat was bedewing his manly brow and trickling clammily down his spine, his skin was one universal expanse of "goose flesh" —the Colonel was scared! And as he ran he thought, "My God! Will the d—d thing never go off? Curse the man who invented long fuses!"

A race between a man and a dog, even though the latter be handicapped by a few pounds of dynamite, can have but one result—the dog was perceptibly gaining on his master. The dog was faithful—and his wind was good. The Colonel saw that he was destined to be present

when his dear Beeswax died, and it made him feel bad. Something must be done. As he looked about him, almost in despair, he noticed a stone wall at some little distance. Here was his chance. If he could only get over that wall he would be safe. The dog, handicapped as he was by the burden he was carrying, certainly could not climb over such an obstacle. Gathering himself together for a final spurt, the Colonel started for the wall. He reached it in safety, and, with an agility that fright alone could account for, vaulted over it, landing in a slough on the opposite side.

Now, Watkyns is possessed of some brains, hence he began thinking again as soon as he alighted. He realized that in a few seconds a section of stone wall was likely to fall upon him. Knowing that the dog was likely to try to scale the wall at the point where his master had disap-

FINALE.

peared, the Colonel concluded to change his location. He, therefore, waded along the slough as fast as his legs would carry him. He had not gone far when his strength gave out entirely. The last effort was too much for him. Crouching down in the mud and water, he awaited the inevitable.

A few seconds of suspense, that seemed a year to the Colonel, and —bang!—the dynamite exploded with a concussion like a small earthquake. Watkyns was stunned for a moment, and half buried in mud and the *débris* of the stone wall. How he escaped with his life is a mystery. Recovering himself, however, he arose and, clearing the mud and water from his eyes, looked about him. The dog was nowhere to be seen.

As he viewed the scene of desolation caused by the explosion, it occurred to the Colonel to look up at the trees. "Thank God!" he cried. There, in the top of a tall dead pine, was Beeswax—headless, it is true, but still none the less Beeswax.

Sitting down upon the bank of the slough, Colonel Watkyns drew a large flask from his pocket and proceeded to stifle his emotions with a rapidity of action that would have tickled the immortal governors of the Carolinas 'most to death.

Late that afternoon a party of men was sent out to bring in the remains of the faithful Beeswax. They were armed with a search-warrant, a ladder and a rake. The leader of the party trundled a wheelbarrow.

True to his principles, the Colonel took the remains of his pet home with him and gave them a decent burial.

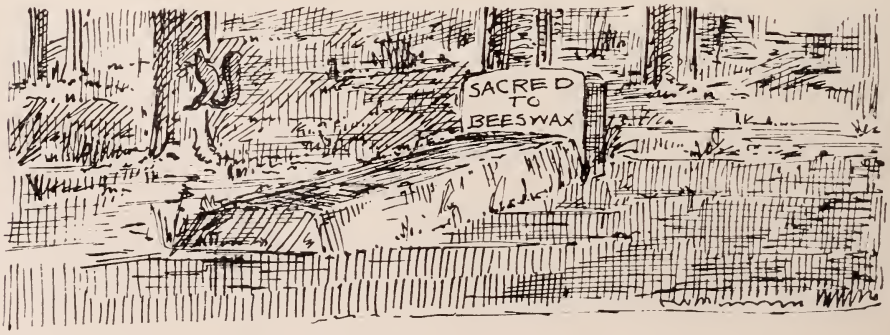
Before the fragmentary relics of the dead retriever were put aboard the train, the superintendent of the mine—who was a worldly-minded fellow, with not a spark of sentiment or throb of emotion in his organization—suggested that a photograph of the corpse ought to be taken. The manufacturers of the particular brand of giant powder that had caused the dog's demise would, he said, pay liberally for such a striking advertisement. But the Colonel was quite sentimental, and sensitive to a degree; and so, after a few feeling remarks from that worthy gentleman, in which his celebrated gun played a by no means minor part, the superintendent dropped the subject.

On a beautiful grassy slope, just behind the Watkyns homestead, is a little mound marked by a white slab, upon which may be read the inscription:

"HERE LIES THE BODY
OF
B. YALLERY WATKYNS,
WHO WAS
FAITHFUL UNTO DEATH."

I pardon the Colonel's sentiment—he has aged quite perceptibly of late; and besides, as I have already remarked, he is under treatment for nervous prostration. He also still has a very large gun.

G. FRANK LYDSTON, M. D.



JACQUES BEAULIEU [OR BAULOT], MORE FAMILIARLY KNOWN AS FRÉRE JACQUES.

The Originator of Lateral Perineal Lithotomy.

TO STUDY the life of Jacques Beaulieu is to become acquainted with the strange and interesting character of one to whom surgery is under considerable obligation. He is supposed to have invented a method of performing lithotomy which, improved by several surgeons and perfected by Cheselden, resulted in the most ideal method of opening the bladder through the perineum to remove a stone, *e. g.*, by the lateral oblique incision.

Jacques Beaulieu was born in 1651, near Louis-le-Sannier, in a hamlet called Etendenne. His parents were poor, and the son was raised as a day laborer. Although there was no endeavor made to educate him, he managed to learn to read and write. When quite young he showed a peculiar taste for surgical work; and while a convalescent patient in the hospital at Louis-le-Sannier, he requested the authorities to appoint him to do the bleeding.

He left the parental roof at the age of sixteen and soon entered the army, following the life of a soldier until the age of twenty-one. At some uncertain period he became the servant of an Italian Incisor named Palloni, who was doing considerable operating for stone by the methods then used. Beaulieu, with his natural taste for surgical work, took great interest in assisting Palloni; and finally, feeling himself qualified to pose as an operator in this branch of surgical work, left his master and began the career of a traveling lithotomist, which continued with varying periods of interruption as long as he lived. In 1690 or '91 he was in Italy and joined a peculiar religious organization, the character of which is little known. From this time he was known as Frére Jacques and was, as the inscription under the accompanying engraving states, "*surnommé L'Hermite.*"

A glance at this portrait reveals that he did not religiously adhere to clerical garb. He could not have belonged to any of the higher monastic orders, for the practice of surgery had been forbidden the monks in the twelfth century, at which time they gave it into the hands of the barbers, who had been shaving and bleeding them. Baas and other historians must be mistaken when they say that he was a Franciscan. Dionis says "he became a sort of a monk."

His religious obligations were evidently of a character which allowed him much freedom, for he continued to travel and operate until his name was well known in France; especially as the result of work done at Besançon in 1695.

The earliest method of performing lithotomy, of which there is record, was given the name of Celsus, who thoroughly described an operation which had been performed for many centuries preceding the Christian era.

FRÉRE JACQUES.

It was also called the "apparatus minor" or "cutting on the gripe." The "apparatus minor," because of the small number of instruments required in the work; and "cutting on the gripe," because the method consisted in passing two fingers into the rectum, hooking them over the stone, pressing it down till the peritoneum bulged, making a curvilinear incision across the protruding perineum and expelling the stone; an operation that did not require anatomical knowledge.

Transverse section of the structures at the neck of the bladder must have doomed the patient to subsequent sterility, and in many instances have been followed by fistula; hence, one is not surprised that "cutting for stone" had always been regarded as a somewhat questionable procedure by the more legitimate physicians and surgeons, and relegated to the empirical practitioners of what in Beaulieu's day was the trade of surgery.

The "apparatus major" was introduced in 1524 by Mariano Santo di Barletta, who learned the method from his teacher, Giovanna de Romani, to whom the inventor, Battistadi di Rapallo, had made it known.

In this "Marian" operation many instruments were used, and the incision was made in the median line, it being the intention to incise the urethra and avoid the neck of the bladder.

Beaulieu attempted to open the bladder by the lateral oblique incision in a case he operated upon at Perpignan. Doing this without anatomical knowledge would appear to demonstrate the truth (somewhat paraphrased) that fools venture where surgeons fear to cut; but a man who had performed as many perineal sections as Beaulieu must have acquired some knowledge of the topography of the parts. At any rate, we know that he always appreciated the value of the incision, which he never abandoned. This fact, associated with his constant and laudable endeavor to place the operation in the hands of those whom he felt were more competent men than himself, raised Beaulieu into a place of historical honor. It is to show this endeavor that this sketch of his life is offered.

In 1697 he arrived in Paris, and having in his possession a letter of recommendation from a person of influence upon whom he had operated at Besançon, he secured an introduction to Harlai, the premier president of Parliament, who ordered the physicians and surgeons of the Hôtel Dieu to investigate the new method.

The physicians were called upon to decide questions appertaining to surgery in those days, as the "barber-surgeons" were under the authority of the higher caste—the physicians.

Jacques requested the committee to allow him clinical material, but his ignorance of anatomy and disregard for the accepted rules of surgery caused these physicians to suggest that a cadaver with a stone placed in the bladder would be more appropriate. Upon this cadaver Jacques demonstrated his method.

Eloy (*Dictionnaire Historique de la Médecine*) describes the method used at this demonstration, and it differs little from the operation now performed except that *he used a smooth sound, and cut from behind forwards.* "Without withdrawing the sound he dilated the opening made into the bladder with his finger, and locating the stone introduced an instrument which further dilated the incision. Along this conductor he pushed the forceps, and seizing the stone withdrew the conductor, and then the stone-

laden forceps." It is worthy of note that the committee had placed a very large stone in the bladder.

Eloy states that the assembled physicians and surgeons dissected the parts subjected to operation and found that the incision, which extended through the neck of the bladder and into the body of this organ, had wounded no important structures, muscular or otherwise. Several of those present were favorably impressed with a method which they considered less dangerous than the "apparatus major," which did not facilitate removal of the stone by severing the neck of the bladder. But there were several who brought forward Jacques' clinical record. Acknowledging that he had cured some desperate cases, they stated that he had had bad results in other cases where the simpler operation would have sufficed, and as he did not possess or claim any knowledge of anatomy, and had no regard for surgical rules, it would not do to sanction his operating upon the living.

Jacques left Paris in disappointment two months after entering the city, but soon received encouragement. The court of Louis XIV. was assembled at Fontainebleau, and here Jacques found Duchesne (the first physician of the princes). Impressed by the certificates and sincerity of Beaulieu, Duchesne induced Fagon (the first physician of the king), Boundelot (the first physician of the Duchess of Bourgoyne), and others, to give Jacques an opportunity to demonstrate his operation clinically.

A boy was found at Fontainebleau suffering from stone, and Jacques operated upon him in the presence of the physicians mentioned and also of Ch. François Felix (the first surgeon of the king), with the happy result that the boy was up and walking about in three weeks.

Jacques received great credit for this operation, and the king himself remarked that it would be wise not to lose track of this man.

Jacques remained at Fontainebleau some time, and operated upon six patients. In one of the cases he found as a nucleus for the stone a bullet which had been received in a gun-shot wound of the pelvis eighteen years previously. Soon his general reputation was such that we are told many Parisians considered that he had been sent by God to relieve suffering humanity. His increasing reputation could not have been regarded with a favorable eye by the barber-surgeons.

In April, 1698, he was again at Paris, operating at the Hôtel Dieu and the Charité. Again the physicians and surgeons were called upon to judge of his method.

Rational surgery was born in France; but the followers of Guy de Chauliac and Ambroise Paré failed to appreciate the value of Beaulieu's procedure.

Jean Méry, one of the most celebrated of the surgeons of this period and one of the surgeons of the Hôtel Dieu, reported that of the eight cases operated upon by Jacques of which he had personal knowledge, two had died three days subsequent to operation, another had the rectum opened, and the fourth the vagina, and that he was ignorant as to the result in the other four cases. The rest considered that the method employed by Jacques was an improvement over the two accepted methods, and he was allowed to operate at the Hôtel Dieu and at the Charité. He performed forty-two operations at the Hôtel Dieu and eighteen at the Charité, and as he lost twenty-five of these sixty cases, he was forbidden further operating at these hospitals.

While the French physicians did not appreciate the method of Beaulieu and adopt it, they did not, we are told, attribute his fatalities to the incision. They were more concerned, naturally, in his acknowledged ignorance of anatomy, the fact that the "apparatus major" was not used, and that he abandoned all preliminary preparation or post-operation care of the

patient. Jacques simply removed the stone and then left the patient, saying: "*L'operation est achever; Dieu vous guerisse!*"

Perhaps discouraged, certainly disappointed, he departed from Paris for the second time. François Sauveur Morand (1697–1773), a Frenchman who, after Beaulieu had long been in a forgotten grave, made his

worth clear to his countrymen, states that those who investigate will discover two epochs in the operations of Jacques—one, when he was discouraged by the censure of those Frenchmen who would not see anything good in his procedure, and were not willing to aid him by applying to his operation what it lacked and what he could not supply, *e. g.*, anatomical knowledge and surgical experience; the other, a period in which Jacques was in the hands of men who were willing to instruct him, and to apply to his method their experience and learning.

In the first there is, naturally, found a defective operation, which Jacques abandoned for the improved method which resulted when he received encouragement and instruction.

In the year 1699 he visited Orleans, Aix-la-Chapelle, and traveled to Holland.

As the inscription beneath the accompanying engraving states that his age was forty-eight years at the time the plate was made, this portrait, which is a rare one, represents Beaulieu as he appeared when in Holland in this year 1699. We are not surprised, when we glance at his pictured features and costume, that he did not impress the fastidious French as he did the Dutch, who cared less for the refinements of dress. One can readily see in his calm, but determined glance, and the firm, if somewhat sullen set of mouth and chin, evidence of that character which enabled him to force his procedure into legitimate surgery in spite of the physicians and surgeons who opposed him.

In 1699 he must have been held in considerable esteem in Holland, judging from the verse beneath his portrait:

"Dit 's broeder Iakob, die, gesterkt door Godts gena,
Zoo hoog en dier het volk verplicht heeft vroeg en spá,
De liefde en Godtsvrucht straalt om strydt uit zulk een wezen,
Zyn last en lust is 't elk, om Godts wil, te genezen,
Best etst hy zich in steen, op weldoen komt het aan,
Een witte keursteen zal op al zyn arbeidt staan."

I find that in consequence of the success Beaulieu achieved in Holland during his visit to that country in 1699, and during a later and more prolonged visit, the magistrates of Amsterdam had his portrait engraved, as did those of the Hague.

I do not think this print is taken from either of those plates, for they seem to have been made during his later visit, while this was engraved in 1699. This makes the portrait of some interest, as it represents him as he appeared when at the turning point in his career and the history of his operation. In 1699 he went from Holland to Cologne, and Fagon finding him in that city induced him to go to Versailles. Here these two men experimented upon the cadaver and exhibited their work to Duvernay (professor of anatomy at Paris), who expressed the belief that Jacques' method was an improvement over the other operations; but that it needed changes in detail. Fagon recommended the adoption of the grooved sound from the "apparatus major," and Jacques began using it in 1701, upon the additional advice of Felix and Duchesne. Later he profited by the suggestions of Hunauld (a physician of Versailles).

In 1702 the master surgeons of the Royal Charité of Versailles gave Beaulieu a certificate showing that he had had thirty-eight successive cures. Troubles soon began again.

Fagon, his friend, who was suffering from stone, at the solicitation of his family, concluded not to have Jacques operate upon him and put himself under the knife of Georges Mareschal, who was at that time chief surgeon at Charité, and who had succeeded Felix as premier surgeon of the king.

In 1703 a person of prominence selected Jacques to operate upon him. In order to make the success assured, he allowed twenty-two poor fellows suffering from stone to make a hospital of his residence, and Jacques operated upon them before placing the knife against the perineum of the Mareschal des Logis. The result was that the twenty-two poor patients recovered and the rich Mareschal died. The criticisms regarding the death of this person of quality, and the fact that Fagon had selected another to operate upon him, disgusted Jacques, and once more he departed from Paris, threatening never to return.

In 1703, at Geneva, as a result of his work, he was honored by the Republic. In 1704 he was urged to visit Holland, and in July of the same year he traveled to that country. His name was soon known throughout the Netherlands, and he was always appreciated in that land of "common sense."

Holland was a close rival of France in the cultivation of the science established by Paré, and excelled France in the cultivation of the science created by Vesalius. The Dutch, in their treatment of Jacques, demonstrated that superior power of judgment which, with the exception of one or two historical manias, has always characterized them. The reason that the Dutch had not the honor of taking what France refused and making Jacques' method a scientific procedure is due to a historical fact which increases the esteem of Beaulieu and lessens that of a certain Dutch surgeon. Joh. Jac. Rau (1658–1719) was teaching surgery and anatomy at Amsterdam and frequently witnessed Jacques operate. At first he disapproved of the method, although he predicted that in the hands of an able surgeon it would become of great value. Later he improved the technique and adopted the method, as did Frére Côme, Le Cat, Hawkins, and Foubert. It was left, however, for Wm. Cheselden (1688–1752), whose skill became so great that he could perform a lateral lithotomy in forty-eight seconds, to perfect the method of Beaulieu and give the English the honor France refused and Holland missed through treachery. Rau, after learning the method from Beaulieu and adopting it, was very severe upon him. He did not drive him from the country, however, as he had been driven from France, for Beaulieu left Holland with pleasant entreaties to remain ringing in his ears. His remark, as he took his departure, that they had a more competent operator in Rau, is more pathetic, when we read that Rau never gave Jacques credit for the method he had taught him. Historians state that Rau operated in one hundred cases by Jacques' method with great success, and history justly censures him because he did not give credit where it was due—in fact, he never made public his technique, the description of which we owe to Albinus, who studied under Rau.

Morand is said to have introduced lateral lithotomy into France. He

was sent by the Royal Society to London to study the method of Cheselden; rather a roundabout way for the method of Beaulieu to reach adoption by his own countrymen.

Morand gave all the credit to Beaulieu, and told the French that if they had treated Jacques as well as he was treated in Holland that they, and not the English, would have had the honor of giving to the world the perfected operation which the world attributes to Cheselden.

As a result of the severe criticism of Jacques in France, there has always been associated with his name a disrepute which does not belong there. He was honest and sincere, and did what he could to render his operation of value to surgery by demonstrating it to the more legitimate surgeons.

Ménj, in 1700, published a criticism of Beaulieu's method entitled "Observations sur La Maniere de tailler le pierre dans les deux sexes par Frére Jacques." Hunauld sustained the defense of Beaulieu in a treatise which he dedicated to Fagon, but which was never published. Morand possessed a copy, and in 1731 stated that the method of Beaulieu, as it was being carried out by its inventor in 1702, was in the main the same as the method he had learned from Cheselden.

At Bruxelles Jacques was presented with a medal of gold, having on one side his portrait with a sound in his hand and on the reverse the arms of the city of Amsterdam and the inscription: *Pio Servatis Civibus.* He traveled through Flanders and returned to France in 1707, where Fagon received him heartily; then to Lyons, Province, Geneva and Nancy. In the last city he remained for a while in 1710, at the invitation of the Duke of Lowaine, after curing several officers of this prince and eight other patients, who suffered from stone. In 1712, at Strassburg, he operated upon fifteen cases, with fourteen recoveries.

After extensive travels he arrived at Rome in 1713, was presented to the Pope, and then returned to the place of his birth. Finding his parents dead, and desiring to lead a tranquil and pious life, he took his abode with some Benedictine fathers, but soon left them for the society of Laurent Decart, an old friend, and here, after an illness of three weeks, he died on the 7th of December, 1714, a date fixed by Morand from the mortuary records of the parish. Some writers give the date 1720.

We read beneath his portrait the words, "*Opérateur Fameux et Gratis,*" and we are told by many historians that his work was of a philanthropic character; that he received (when he received anything) for his work a few sous to pay for a meager livelihood, and to cover the expense of repairing old instruments and purchasing new ones. It is also stated that instruments of gold were repeatedly given him in Holland. We read that of what riches he received he gave liberally to the poor and the church. His portrait shows that he did not squander his earnings upon his person, and that these earnings were not meager we are informed by writers who state that he left 12,000 *livres* at his death.

Vacher, a surgeon of Besançon, and a brother-in-law of Morand, was the author of a biography of Beaulieu, which was published in 1757.

FRANK WEBSTER JAY, M. D.

RELATION OF EXPERIMENTAL PHYSIOLOGY TO PRACTICAL MEDICINE.[1]

Mr. President and Fellows of the St. Louis Academy of Medical and Surgical Sciences:

THE SUBJECT of the paper I bring before you this evening is not one where I can demonstrate with a pathological specimen, but pertains to the relation of experimental physiology to practical medicine. From a natural distaste to medical matters, which seems fixed in the mind of all healthy individuals, and the many technicalities which are inseparable from the healing art, the details of medical science are ignored by the great majority of the laity. One is often surprised to find intelligent and well-educated people with but a vague idea of what physiology really is, and without the slightest conception of the term physiological research. But it is still more surprising, and to physiologists more disappointing, to find that some *medical* men do not fully appreciate what they owe to experimental physiology. I have met some who regard *physiological* teachers and workers as very useful persons in so far as they instruct medical students in the elements of their profession and help them pass their final examinations before the college faculty. I have met others who even go so far as to admit that a little knowledge of physiology is advisable, or even necessary, for the successful practice of medicine; but when they hear of any form of modern research, such as the graphic method or some new mode of investigation, they are ready to exclaim that physiology of this kind does not bear any very close relation to the practice of their profession, either as physicians or surgeons; they believe that the physiology they learned as students sufficed to make them very successful practitioners. This is in most cases quite true, and would have been equally so had Hippocrates said it in his time. But even a modern practitioner following a routine practice would not like to be deprived of his knowledge of the circulation when feeling a pulse, or of the invaluable aid in arriving at a correct diagnosis by the aid of the stethoscope when examining a patient's chest. Yet the times were when the views we now hold on these very subjects were thought to be worse than new-fangled and useless, and were condemned as being very wrong and hurtful to the sound practice of physic. I quote you one line from the great Montaigne, when he says: "It is a physician's *duty* in this world to move *onward*, steadily and quietly, rendering all the aid in his power to fellow-men, as well as to himself." In this onward march the true, progressive physician, is ever mindful of the fact that each succeeding day we are at a point of medical history when complaisant reflections concerning the adequacy of our knowledge must be challenged. One of

[1] Read before the St. Louis Academy of Medical and Surgical Sciences, November 22, 1898.

those remarkable periods have arrived when the whys and the wherefores are put to a medical man when any branch or specialty in medicine is called into question by the public. This is as it should be. We must be ever ready to give a *reason* for the faith that is in us.

When we glance over the history of the healing art, we recognize that there were periods in which medical science was not only threatened, but absolutely checked and sent backward by the force of bigotry on the part of the public. But it certainly seems difficult to us all now to conceive how it came to pass that for twenty centuries biologists and philosophers remained ignorant of the construction of the human body. But we know such to be the fact, and that it was simply because a monkish prejudice forbade the dissection of the dead. Let us all, then, give thanks this evening that not only dissection but vivisection are sister studies of physiology, by which we learn the mode of working of the living tissues.

The exact relation of experimental physiology to practical medicine is an interesting one, and in order to give you a correct idea on this subject, I must ask you first to accompany me back to the earlier stages of medical knowledge; a condition, I will now add, that seems to us, with our present increased facilities for diagnosis, one of chaotic darkness. The first attempt at a ray of light in the healing art was intimately related to the mystic and religious. People began thinking first about the exigencies of existence; then they formulated the convenient doctrine that good and bad deities or demons existed, and by certain dogmatic rules they hoped to propitiate the one and protect themselves against the other, from which they expected immediate beneficial results, by incantations, prayers, and various ceremonials, which strike us to-day as ridiculous. In the undated ages of early Indian history, the gods were the only protectors of health. Then came priestcraft, which was first holy; second, magical; third, purely mercenary. Then came the Christian era. When the *church* influence prevailed the old temple of medicine crumbled, tottered and fell. It became not only the right, but the inherent duty of Christians to lend a hand in suppressing conjurers and witches, until Europe fairly blazed with burning stakes to which were tied the workers of these magic cures. This burning did little good for the healing art. The monks assumed control and held monopoly of medical practice for many centuries. The therapeutic value of fragments from the graves of holy martyrs, the efficacy of a drop of water from a holy well, were highly esteemed. With the revival of letters a marked change comes over the scene. The *Reformation* broke the power of the priests. The art of printing aided in a way heretofore impossible in the diffusion of knowledge. Universities were founded. The *sciences* began to move onward. The modes of working of the human body were again taken into consideration by some professors of anatomy and medicine. The mystic element still pervaded the minds of even some of the most learned men. Paracelsus was one of them. Equally notorious for his power as a reformer and his personal vanity, he may be regarded as the greatest mystic physician of the Rénaissancé—or, indeed, of any age. Thoroughly imbued with the alchemistic and astrological magic of his time, yet versed in the old Grecian philosophy, he spent his life in searching for a universal specific and in uprooting the faith in the antients; he despised the physiological essays of Galen, and caused his works to be burned.

Paracelsus was the composite type of a thorough charlatan, the prince of unphysiological medicine. He denied the utility or necessity of knowing the cause or mode of origin of disease. The physician, he contended, need only be able to cure it. Much and deservedly as Paracelsus has been abused, we must admit that we owe *something* to him. He helped to make way for advancement in experimental physiology, not by adding one jot of knowledge, but by breaking down the great barrier of authority which the slothful ignorance of ages had allowed to stand in its path. It was not by his genius or learning that he did this, but rather by his egotism and vanity, which prompted him to set himself up above his predecessors and contemporaries. But long after Paracelsus was dead mystic medicine showed itself in different forms. These had in common a perfect disregard for the working of the healthy human frame and the mode of origin of pathological processes.

Our present standpoint differs so very essentially from that of the olden time that it is difficult to know where to take up the thread of physiological knowledge. Although Hippocrates had a fair idea of the structure and uses of the body, the physiology in his works is so crude that it can hardly be said to form the basis of what we include under that term nowadays. In the works of Galen, I believe, we find the first definite description of systematic experimentation, and to him we may also attribute the first conception of a distinct physiological science. It is necessary to examine Galen's physiology somewhat in detail, not only because it is the earliest we know of, but also because it proved so very long-lived, not having been changed very materially for some 1400 years. His works are very voluminous. Galen had a good grasp of the coarser anatomy of the vertebrate body, chiefly acquired by dissecting domestic animals and apes. He observed nature accurately and questioned her closely by repeated vivisections and other experiments. His ideas of *digestion* were simple. The pancreas attracted but little attention from Galen. Concerning the function of the kidneys themselves we hear very little. Galen well knew the difference between the structure of the pulmonary artery and the ordinary venous trunks. Galen gave public demonstrations of experimental researches on the spinal cord, using for these vivisections young pigs, in order not to shock the audience, instead of monkeys, which he thought would have been preferable on account of their closer analogy to man. He showed that section of the cord in different parts of the cervical region was followed by different results to the respiratory and other movements. He demonstrated the difference of partial and complete transverse section of the spinal marrow, and also the effect of median longitudinal section.

When one reads of these advanced investigations in experimental physiology, it is difficult to understand that nearly 1700 years could pass over without any great step in advance being made in nervous physiology; but it seems a lamentable fact that during this prolonged period no experiments were made in this direction. Notwithstanding the wide field for experimental physiology and practical research left open by Galen's attempt to explain the uses of the different parts of the body, advance in this branch of knowledge took place very slowly. Nothing of fundamental importance was added to his idea of the circulation of the blood for some 1400 years.

Early in the sixteenth century a number of remarkable men appeared —men who were interested in experimental physiology. Foremost among these was a Spaniard, Servetus, who gave a more accurate description of the course of the blood through the heart than had appeared up to that time. He says: "In order to understand how the blood is really *life* itself, one must first know that the spirit comes from the air, which is inspired and insinuates itself into the blood, and thence passes into the left ventricle, &c. This communication is not made through the septum which separates the ventricles, as is commonly thought, but the blood is carried by an unknown plan from the right ventricle to the lungs by the arterial vein, and thence by the venous artery the air gets into the vessels and mixes itself with the blood; the latter in its turn gets rid of its baser humours in this part. The blood, thus mingled with air, is attracted by the left ventricle, which dilates to receive it more easily." This learned anatomist and physiologist, unfortunately for himself and for experimental physiology, commenced his career as a theologian, and on this account fell a victim, at his very prime, to the fanatical zeal of religious bigotry. Expelled from Spain, he took refuge in France. Having incurred the personal enmity of Calvin, the latter denounced him to his protector, a bishop of the Church of Rome, and had him cast into prison. He, however, escaped, and, little suspecting who was his worst enemy, went to Geneva. Here he was seized by the great reformer. He was condemned to death for blasphemy, in having expressed opinions as to the physical impossibility of the doctrine of the Trinity, and was burned alive at the stake in his forty-fourth year.

Vesalius, the great Belgian anatomist, was also interested and greatly assisted the cause of experimental physiology, introducing a new era into the question of the circulation.

Realdus Columbus ably contributed his mite to experimental physiology by giving a good account of the flow of the blood through the heart and lungs, adhering to the view that the respiratory movement forced the blood and air through the arteries. But it remained for an Englishman (whom I shall but briefly mention, since you are all familiar with his works) to make the whole matter clear. There are but few who deny to William Harvey the distinction of having first completely grasped and fully described the action of the heart and the course of the blood through a circle, one-half of which lay in the lungs and the other in the general system. The difficulty Harvey had in persuading his contemporary, the great anatomist Riolan, and others, of the truth of his views of the motion or circulation of the blood in the portal vein is, to my mind, a sufficiently clear proof to silence all doubts on the subject of priority in the matter. For what Harvey found out was through his own methods of physiological research and experimental methods in original vivisection; for it was by experimenting on the living animals that he had a share in the discovery of the circulation of the blood. But even Harvey did not complete the details of the circle through which the blood had to flow. It remained for Malpighi to *see* it in the capillaries. This father of minute anatomy demonstrated the flow of blood from the arteries to the veins through the capillary network of the lung of a frog while the animal still lived, so that the last link in the chain of evidence wanted to complete

Harvey's circle was supplied by vivisection. No one set of experiments, no discovery, had so much influence on physiology as that of Harvey; the time of his labors may be regarded as the period of quickening of physiological science.

Connected with the circulation of the blood is the circulation of the chyle and lymph, in a distinct set of vessels. Harvey did not exactly believe in the existence of these vessels, although they were discovered during his lifetime. He spoke of them with encouraging words, however, and asked the discoverers for further proofs of their constant occurrence. As the complete and accurate knowledge of the motions of the blood waited upon the diligent performance of vivisection, so we find that vivisection, and vivisection alone, was the means of discovering the absorbent vessels, both great and small. It remained for a Frenchman to trace the chyle through the thoracic duct to the veins, although, singularly, Eustachius had described the thoracic duct a hundred years before.

Time will not permit me in this brief essay to refer, even briefly, to the numerous physiological experiments on living animals made by such men as Hunter, Hewson, and Magendie, by means of which we arrived at clear ideas of the mechanism of the absorption of foodstuffs from the alimentary tract, and of the irrigation of the textures of the body with nutrient juices from the blood.

The practical gain secured by a correct knowledge of the wide distribution of the absorbent vessels can hardly be overestimated. Their power in carrying off waste products is constantly being employed. Their absolute necessity in removing pathological products is invaluable. If the only result of a knowledge of their existence and powers were the introduction of catgut ligatures, which can be absorbed, their discovery may be said to have done as much for surgery as did that of the motor power of the heart.

I may as well mention or refer here to an argument made use of by some writers on the subject of physiological and experimental research as evidence against the propriety of vivisection. It is that the result expected from any given experiment should be stated beforehand, and should be at least such as would surely compensate for the objections to the undertaking of an experiment on a living animal. This, in some countries, is an important point for physiologists to consider, where they are prevented by law from doing anything in the way of an experiment on a living animal. But is there any one in the medical world who could dispute the value of such knowledge, or refrain from rejoicing that these physiological demonstrations were undertaken?

But has physiological research been silent since the time of Harvey and Malpighi? Certainly not. The experiments of John Hunter on the contractility of the arteries of the horse next followed. Bernard demonstrated by vivisection the paralyzing effect of section of the sympathetic nerves in the neck upon vessels of the head. Dr. Brown-Séquard observed that the electrical stimulation of the distal end of the divided sympathetic caused the small vessels to contract, and thus brought back the pallor of the part. By means of experiments on living animals almost daily additions are being made to our knowledge of experimental physiology. The practical value of these details is, I think, sufficiently proved by the fact

that many of them were discovered during the practical investigations of the processes of inflammation, which lies at the root of all pathological science.

Were I to attempt to explain in all its entirety or completeness the relationship borne by experimental physiology to the rational practice of medicine, it would be necessary for me to devote many papers to this most interesting and instructive subject. In this connection, then, I must, therefore, restrict my observations to the title of my subject, viz.: "The Relation of Experimental Physiology to Practical Medicine," and which is just now most nearly before my mind. The primary and fundamental object of experimental research is to advance physiology—the science which teaches us the uses of the various organs and textures of the body in the normal state, and how the animal economy is carried on in health. The value of physiology depends on the knowledge it gives us of the normal operations of the body, and *not* on the few cases in which certain experiments happen to aid us in understanding disease, and thus directly promote the practice of the healing art. My argument is this: Physiology is the foundation of both pathology and therapeutics, which, together, make up medicine; and, therefore, rational medicine depends directly upon physiology for its strong growth and genuine progress. Hence, experimental physiology cannot advance without vivisection, which is as essential to its progress as is dissection for the study of human anatomy. Therefore, experimental research is as necessary for the progress of the sound practice of medicine as is experimental research in any other science for its advancement and application to daily life.

In the next place, gentlemen, I believe that the rational practice of physic, as it is carried on in the present day, is in a great measure the outgrowth of a slowly-growing physiological science upon which it depends and from which it cannot be separated. There is hardly a thought that can strike any practitioner here this evening that does not in some way or other depend upon physiological facts which have been at some time elicited by experimental research. I do not mean by that to state that the accurate and painstaking observation of clinical facts and *post-mortem* appearances has not done much—probably more than anything else—to bring our medical knowledge to its present standpoint; but I contend that clinical observation and *post-mortem* experience *without* physiological research would never have been able to advance medicine to the high position it holds to-day; and, on the other hand, I believe that physiological study, even unaided, could arrive at a rational system of therapeutics.

There is no doubt that both clinical study and pathological observation have not only helped practical medicine onward, but they have also greatly contributed to the progress of physiology itself. In fact, I find it impossible to separate exact clinical and pathological work from scientific research of a purely physiological nature. Is not all treatment more or less experiment? And is not this particularly true of purely empirical treatment? Nowadays, where is the pathological laboratory in which a mere record of *post-mortem* changes in the human subject is not aided by experimental inquiry into pathological changes as demonstrated in the lower animals? for we must be ever mindful that correct definitions lie at the basis of exact science.

Within the whole range of medicine I know no better illustration of the value of extended study which must come of special observation than the field of bacteriology, for the study of which, to be adequately grasped, must be carried on not only throughout the whole fields of medicine and surgery, but here, at all events, there can and ought to be no boundary between them—for the largest purpose, the land to be explored must be common to both.

We now simply marvel at the light and aid thrown on modern diagnosis by the indispensable science of bacteriology. What has been the effect of the rapid progress of scientific knowledge of the actual practice of our healing art? The increasing accuracy of our knowledge of the normal tissues, and of the structure of the various organs into the composition of which they enter, has led to a more minute comparison of them in health and disease. Hence, one of the most striking characteristics of modern medicine is the localization of disease. Nor have we contented ourselves merely with *post-mortem* localization of pathological changes, but unremitting efforts have been made to recognize their exact position during life—for the medical man nowadays is expected to ascertain definitely in what organs of his patients disease is situated; he must also explain the nature of the morbid change.

It is important in the early diagnosis of numerous diseases that the character of the infection shall be known; and in order to do this a bacteriological examination is imperative, to positively determine the nature of the case. For example, take a case of puerperal septicæmia. In no branch of medicine has the discovery of the streptococcus been of such benefit as in puerperal cases. This being true, the one aim of the progressive physician should be to overcome these agencies as rapidly as possible. The treatment to-day and the subject of current discussion is serum therapy.

Take, also, the study of syphilis, it also being due to various micro-organisms. Dr. Van Niessen, who is authority on subjects pertaining to syphilis, demonstrated at the sixteenth German Medical Congress the micro-organisms he had found in the primary sore of syphilis in the epiphyses of hereditary syphilis, and in the blood, especially that obtained by cutaneous incision. The bacteria were found distributed on the surface of tertiary syphilitics. Van Niessen produced syphilis-like lesions in hogs by the injection of specific material. He believes, and has demonstrated, that no single form of micro-organism is responsible for the manifold lesions of syphilis; and his experiments and demonstrations included such varied forms as staphylococci, diplococci, and streptococci, as they were found in various characteristic lesions of syphilis. These micro-organisms had undoubtedly been seen by other observers. The above comments are fraught with double interest to the medical profession, in view of the fact that shortly after these observations were made the Russian government called Van Niessen to St. Petersburg to continue the distinguished Spreck's researches into syphilis.

In assigning to each department of medical study its due credit, their relative ages must be considered and borne in mind. It has been asserted that all the improvements brought about by experimental research would have been introduced with equal certainty had experiments on living animals never been attempted. Clinical observation can be traced back some

three or four thousand years. Experimental physiology as a science was born about one hundred years ago. If we compare the progress made by medicine during the last hundred years with that of the previous thousand years, we shall be able to judge of the relative rates of progress of the two systems of working. The difference to me seems to lie in the fact that unaided clinical observation—that is, practically, the empiric method—goes the wrong way about arriving at a conclusion. It says try this, that or the other remedy, and note which is successful. This is like a boy in school who will not systematically work out his sum in long division by rule, but prefers to arrive at the quotient by guessing probable numbers, one after the other, and multiplies them to see which is the right one; he may, after much trouble, by chance hit upon the correct answer, but he more commonly fails; and most probably the boy who works out his sum in the straightforward way, according to rule, will far sooner arrive at the desired result. Physiology moves onward by means of accumulating and arranging facts which have borne the test of experiment. If asked by you to give an example of the utility of experimental physiology in the treatment of disease, I would feel inclined to answer with another question: Is there *one* reliable system of diagnosis or *one* mode of treatment now in use which has not been modified or improved, if not directly suggested by physiological knowledge? And I am free to confess *I* know none. Let us now consider a surgical case, let us turn to a modern operation and let us consider whether our present *modus operandi* is influenced by physiological research during the closing years of the present century. I shall not attempt to recount any one of the numerous cases which the surgeon now approaches with perfect confidence of undoubted success, although a comparatively short time back he would have looked upon such a case as completely beyond his reach. Many such cases which formerly would have led either to certain death, enduring misery, or lifelong inconvenience, must occur to the minds of all here this evening. Take a case of amputation as example. In the first place, the patient is made insensible to pain by the administration of some anæsthetic. Not only is he insensible to pain, but also unconscious to all that he *formerly* would have been obliged to see and hear—by no means very frequently the most painful part of the operation. The next part is to make the part bloodless by the use of Esmarch's elastic bandage; for is not the fear of hemorrhage always uppermost in the mind of the young surgeon? The use of the ligature can be traced so far back in the history of medicine that it is almost impossible to say whether it was first used on monkey or man, as we have very definite accounts of its use by the Arabians prior to the tenth century. The use of the catgut ligature removed a great objection to the old ligatures on account of the delay in coming away. Antiseptic and aseptic dressings are applied carefully and exactly. The aseptic wound heals without swelling or inflammation, and there is no throb to disturb the patient's rest. No drop of pus comes from the cut surface. Fever, tetanus, pyæmia, secondary hemorrhage, as well as the old dread of bleeding during the operation, are nearly entered into history and forgotten. To the minds of the surgeons of the last century such a method of operation and such beautiful results as to mode of healing would probably suggest the much-looked-for magic remedies or the medical millennium.

In conclusion, gentlemen, I desire to thank you most cordially for the honor you have conferred upon me in asking me to appear before you this evening, for I consider it not only an honor, but also a great pleasure, inasmuch as it gives me an opportunity of renewing my acquaintance with gentlemen with almost all of whom I have previously been placed with pleasing relationship. I have observed at the preceding meetings, when it was my good fortune to be your invited guest, the pleasant relations existing all around. I have recognized that transfusion of mind into mind which I consider the prerequisite for a successful gathering of medical men. I hope to live to see the day when the St. Louis Academy of Medical and Surgical Sciences will take the lead of all other societies, not only in St. Louis, but throughout the entire Mississippi Valley.

H. S. P. LARE, M. D.

PHYSIOLOGICAL AND PATHOLOGICAL INEBRIETY.[1]

IS THE conclusion arrived at by an association organized for the Study and Cure of Inebriety held in New York some twenty years ago, correct, as announced by Dr. Willard Parker, chairman of that meeting, who said:

"This is not a temperance, but a scientific gathering, made up of men having charge of the asylums and homes already established in the United States for the cure of the unfortunate victims of alcoholism. In the beginning of the present century insanity was regarded as a visitation of God's displeasure, and not as a disease, the subject of scientific investigation and amenable to treatment. The important subject of inebriety is regarded now as was insanity some seventy years ago, the disease being considered irremediable and its victims as forever doomed?"

Before that meeting adjourned, the association adopted a pithy declaration of principles, to which it has ever since adhered. It affirmed:

Intemperance is a disease.

It is curable in the same sense that other diseases are.

Its primary cause is a constitutional susceptibility to the alcoholic impression.

This constitutional tendency may be inherited or acquired.

Alcohol has its place in the arts and sciences. It is valuable as a remedy, and, like other remedies, may be abused. In excessive quantity it is a poison, and always acts as such when it produces inebriety.

All methods hitherto employed having proved insufficient for the cure

[1] Read before Missouri State Medical Association, Kansas City, Mo., May 24-26, 1898.

of inebriates, the establishment of asylums for such a purpose is the great demand of the age.

Every large city should have its local or temporary home for inebriates, and every State one or more asylums for the treatment and cure of such persons.

The law should recognize intemperance as a disease, and provide other means for its management than fines, station houses and jails. I would say, by way of explanation, that this society established homes for these unfortunates, but, like all other such institutions, failed to fulfill the expectation of their founders.

Now, if these declarations proclaimed by this society twenty years ago are true, then physiological inebriety is a misnomer; and I do not think many of this association would endorse it. If they did, it would be acknowledging the injustice of our laws, punishing those who commit crimes while under the influence of alcoholic liquors. That of itself shows that the law does not so consider it. My judgment would be that the law is partly right and partly wrong. The law is right as long as a physiological condition exists. I mean by this, while the party has control over himself, and before structural changes have taken place. I believe that inebriety is largely acquired, and that the indulgence continued may eventually produce changes in the brain and nervous system from a physiological to a pathological condition, and then we have a disease. The question will then certainly arise: Why is it so easy for some to acquire the habit? Dr. McMichael, of Buffalo, N. Y., says that "careful observation for the last ten years has forced me to the conclusion that every human being has a congenital predisposition toward some form of disease. Favorable conditions, in many cases, prevent the development of the disorder, but the special susceptibility—the diathesis—is always present. There are some brains which react toward alcohol to a marked degree. In their case the nervous system has a special affinity for intoxicating drinks, and if they are indulged in the alcoholic habit is quickly acquired."

Dr. Horatio C. Wood, of Philadelphia, says: "Habitual drunkenness is usually the result of vice, the habit having been formed through self-indulgence at a time when the impulse to drink could have been resisted successfully; but there does appear to be a neuropathic state, in which at intervals the subject is drawn by an impulse beyond his control to indulge in a drunken revelry—a state which may probably be viewed as a periodical insanity, to which the name of dipsomania is applicable, and in which the law should give authority for restraint."

Dr. Landon Carter Gray, of New York, author of "Mental and Nervous Diseases," says that "the question of the alcoholic habit is, as we all know, a very vexed one. On the one hand it has been considered as a vice, and on the other it has been regarded as a disease. The truth lies, as it generally does, between the extremes."

Dr. Osler says that chronic alcoholism has a marked hereditary tendency, and is seldom abandoned. I think I will be safe in saying, from the authorities I have quoted, and also from the opinions of older men than I, and from my own observation, that the large majority of inebriates have contracted the habit, not from an irresistible impulse to use alcoholic beverages, but from a desire to gratify their own inclinations. How else

can it be viewed? Any other conclusion would destroy the man's free agency, and the State would step in and give him a guardian and take control of both his person and property. No one will dispute the theory that self-indulgence will finally, in a large majority of cases, produce disease; that a great many are moral reprobates; that it seems to bring out all that is vile and drowns all that is good in his nature. There can be no doubt but that when the habit is formed it becomes a disease. But the question will arise: How much will it affect the free will of the subject, and when is that line crossed that he becomes irresponsible?

Dr. Gray believes in heredity, but still maintains the theory that although it is a disease transmitted like other neuropathic diseases, it differs from them in that it is largely under the control of the will, and in a majority of cases they cannot plead irresponsibility. But granting that it may become a disease by indulgence, and we know that it is a disorder when it has caused structural changes in the brain that pathologists describe. Now, what measures should be taken to control this great evil; for that it is an evil, I think no one will deny. I see by late medical literature that the inebriate legislation committee of the British Medical Association has issued a circular strongly advocating certain reforms in the existing laws regulating the treatment of the inebriate. *First*, to substitute curative and reformative treatment in place of imprisonment in jail, which, they say, is ineffectual, and that it was favorably received by Parliament. This, of course, acknowledges it as a disease; to which we all agree when it reaches that stage. But how is this stage to be prevented? All the laws that have yet been tried have been failures. Prohibition, license and no license laws have all been tried in vain. Why is it, knowing the injury caused by its use, that so many physicians become inebriates? Why does not the British Medical Association say something about how to prevent the formation of the habit, in place of recommending a law to be passed to cure the poor diseased brain when it is burned out and beyond the power of repair?

A child's life is such as those who rule over him make it; but they can only modify what he is. Yet, as all know, after their influence has ceased, the man himself has to deal with effects of blood and breed, and, too, with the consequences of the mistakes of his elders in the way of education and hereditary tendencies. But these tendencies may be controlled by proper education or stimulated beyond repair by improper environments. We hear a great deal about national quarantine and hygiene for the prevention of disease, but nothing about the prevention of alcoholic indulgence; and who knows more about the injurious effects of this indulgence than physicians themselves? It is acknowledged to be the greatest evil of the age; and all the contagious diseases combined cannot be compared to it in its destructive tendencies.

I am not so egotistical as to think that I am able to solve this great question; but am firmly of the opinion that it will never be done until physicians themselves, as a united profession, are willing to acknowledge the evil it is capable of doing and unite with the law-making powers to control it. Will they do it? There is no respectable medical authority that will recommend its use for the purpose of prolonging longevity; then why should it be prescribed as a beverage? There is one thing of which

I am quite sure, and that is that none of us will ever prescribe alcoholic liquors to a human being for the purpose of making him a better man, a truer husband, a more kind father, to increase his morality, or to make him a better Christian. EDWARD E. PARRISH, M. D.

PLICA POLONICA.

THERE is, perhaps, no cutaneous disease more interesting than plica polonica, not only because it has been spoken of in history for a number of centuries, but because its pathology is enveloped in more than ordinary obscurity, and to this day it is still a matter of dispute. History, tradition, superstition, magic and false lore have all contributed their share to the history of the trouble. In this country it is certainly an unusual occurrence to observe. It may be occasionally observed in Polish emigrants who settle in the United States, and a certain part of St. Louis which contains a large number of Polish Jews who live in filth and squalor, has a number of cases occurring in women, who carefully hide their disease by wearing wigs. The reason for this will become more apparent as the trouble is described.

Plica polonica is a peculiar disease, which has been universally and by common consent attributed to filth and want of care. Every author, almost, who has written upon the subject, has invoked these as the causes of the trouble. This, without doubt, has been due to the fact that all those who described this peculiar condition have observed nearly the same characteristics: the matting and agglutination of the hair into one inextricable mass, felted together, and accompanied by the presence of inflammatory products, mixed with dirt and pediculi. A foul, penetrating, nauseous odor emanates from the head of the patient. It is by no means necessary that an entire scalp be involved. A single lock alone may be found, in which all the hairs are matted together, forming a hard, cylindrical mass, to which the Germans have applied the name of *zopf*, or *zopfel*. Such specimens are difficult to obtain on account of the superstition which exists concerning them. Those affected this way are firmly convinced that if the matted hair were cut blood would ooze out and death result. So marked is this superstition, that they will not even permit separate hairs to be cut off from the general mass.

The appearances presented by plica may, perhaps, be judged much better by a reference to Figures 1 to 5.[1] In this are represented nearly all

[1] I am indebted to the able article on plica polonica by Dr. Fronczak, which appeared in the *St. Louis Medical and Surgical Journal*, December, 1897, and January, 1898, for these illustrations.

the forms which are observed, and it will be noted that they differ quite materially in form, although identical in essentials. Thus, in Figure 1, the hair is closely matted and felted, and yet there is no indication of strands existing. In this there was no agglutination or discharge, and the mass was perfectly clean.[2] This is one of two specimens which I have

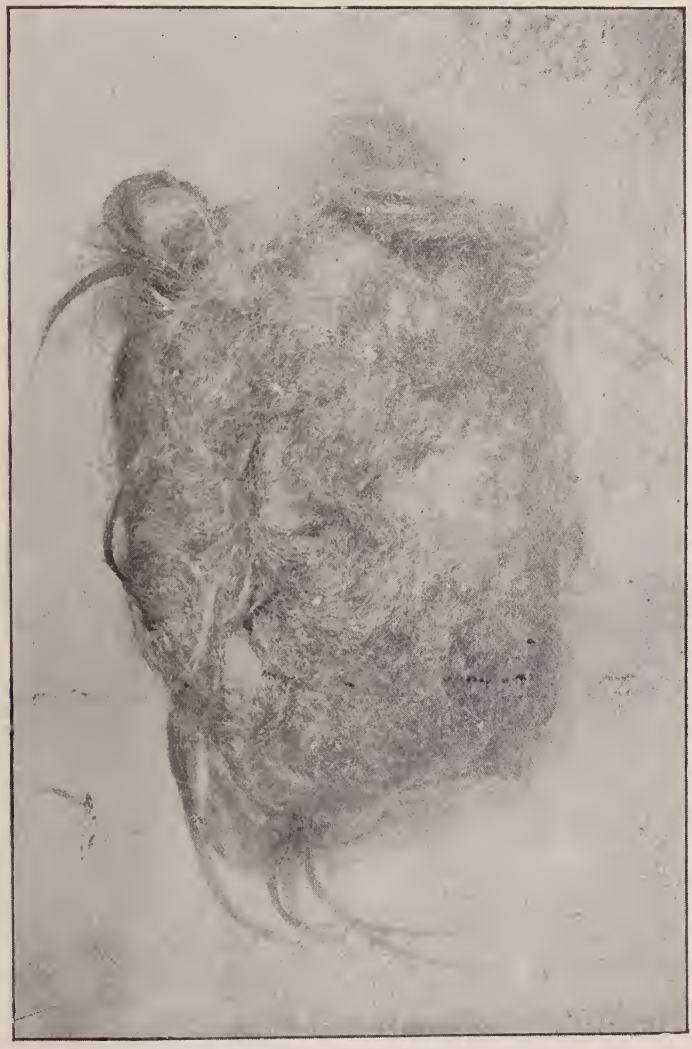


FIG. 1. Plica Polonica of Nervous Origin. (Ohmann-Dumesnil.)

obtained, which were removed from the heads of German girls who were not superstitious.

It is this condition of felting, which can be well noted in Figures 1 and 2, which has given the disease its name of plica, from the Greek *pliko*, "I fold."

[2] A complete history of this case by the writer may be found in the *International Medical Magazine* for July, 1893, and of another by the same author in the *International Clinics*, vol. ii., fourth series.

A reference to the various figures given will give the reader somewhat of an idea of the names and appearances of a few varieties of plica. Reference to Dr. Fronczak's article, or to some of the older authors, such as Alibert and Rayer, will present a list which is simply appalling. They divide and subdivide into species and varieties, which seemed to be one of the special delights of the older authors in medicine. What concerns us more particularly is not so much a classification or, for the matter of that, a diagnosis, as the consideration of what the cause and treatment of the disease may be. So far as the proper formulation of a diagnosis is involved, it should certainly present no difficulties. Plica is simply a matting together or felting of the hair, usually seen in females, though sometimes affecting males, and accompanied or not by filth, inflammatory exudates, animal parasites, etc. It is not necessarily confined to the head, but may attack any locality where hair is found, as shown in Figure 5.

FIG. 2. Plica Multiformis Cirrhata. (Fronczek).

In order to arrive at a proper conclusion in regard to the origin or etiology of the disease, I instituted microscopic examinations of the hairs involved, and was rewarded by finding in all analogous changes. Not only were there changes in the medulla, but these changes were of an atrophic character. In addition to this there existed trichorectic conditions such as are shown in Figure 6. Not only this could be found. There seemed to be a progressive character accompanying the disease. In two cases which had but recently developed, examinations of hair, made from time to time, demonstrated an increasing intensity in the atrophic changes, and under proper treatment the hairs gradually improved until they had regained their normal condition and there existed no longer the slightest trace of any plica. The presence of the atrophy and of the trichorrexis certainly pointed to a neurotic base for the trouble; and the treatment

directed to this condition being followed by a return to the normal, would certainly confirm the view of a nervous origin. In this I have had my views confirmed by other investigators, one of whom, S. Jarochevski, arrived independently at the same conclusions.

The question which naturally suggests itself to one observing the trouble is as to what remedial measures can be employed, if any such exist.

FIG. 3. Plica Longicauda Falciformis. (H. W. Stelwagon.)

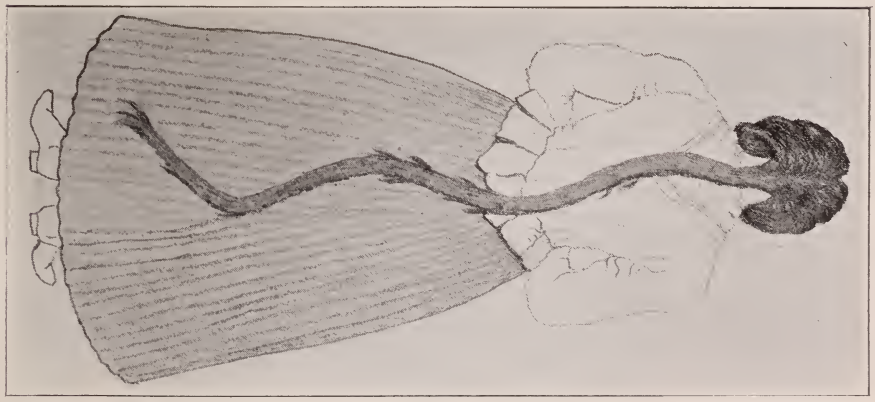


FIG. 4. Plica Longicauda Claviformis. (Jackson.)

Much depends upon the proper management of the condition which presents itself. This implies both local and internal treatment. It is absolutely necessary, in the first place, to remove the entire mass of matted and felted hair. This should be done despite the objections of patients, just as is done in cases of tangled hair, such as may be observed in the course of typhoid fever or analogous conditions in which the nervous system is seriously

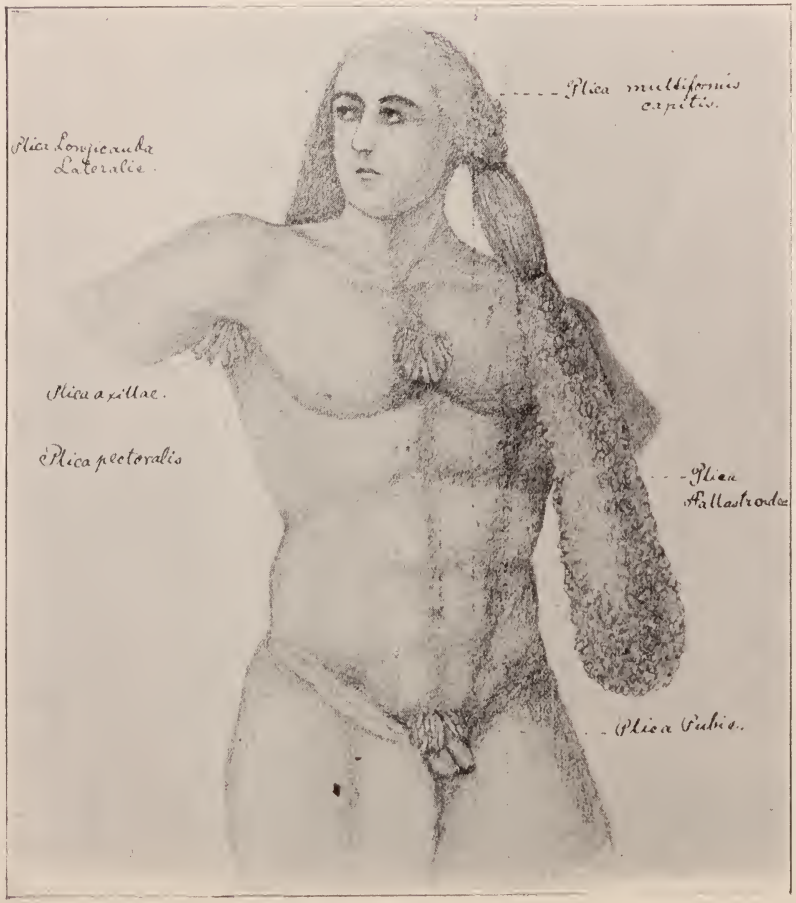


FIG. 5. Multiform Plica. (La Fontaine.)

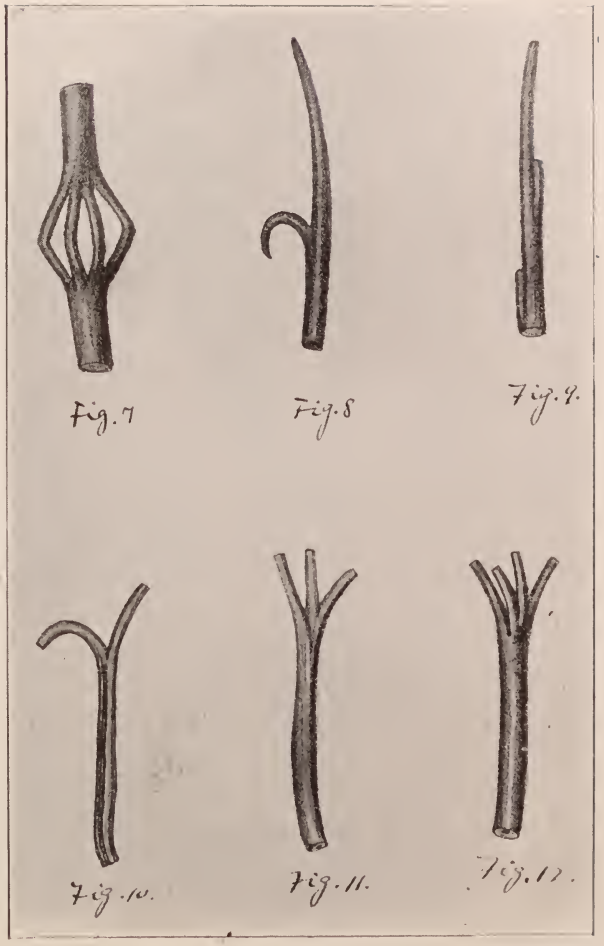


FIG. 6. Trichorecic Appearance of Hair Often Found in Plica.

implicated. It is impossible to untangle the hair, as the condition is due to organic changes in the pilous system. Besides, the mass is composed of useless hair, and is only a danger in that it may form a *nidus* for parasites, dirt, and a good focus wherein pyogenic bacteria may thrive. After the hair has been closely cropped, the scalp should have a good detergent lotion applied, such as the spiritus saponatus kalinus, made as follows:

℞ Saponis viridis..... 2 parts
Spts. vini..... 1 part
M. Sig.—Hebra's spiritus saponatus kalinus.

After the thorough cleansing which this will give the scalp there should then be regularly applied a stimulating lotion which will tend to increase the circulation of the scalp and in this way promote the nutrition of the hair. Various forms of application may be employed; but an excellent one will be found to be that made according to the following formula:

℞ Resorcini..... ʒ i
Hydrarg. bichloridi..... gr. ii
Spts. vini..... ℥ vi
M. Sig.—Apply twice a day.

External treatment alone, however, will be found to be insufficient. The cause of the trouble must be removed, and to be enabled to do this the condition of the nervous system must be inquired into and whatever pathological state is present must be corrected. This is, by no means, as simple a matter as it might appear at first blush. Neurotic disturbances are not only numerous and varied, but the appropriate treatment demanded in each condition is no less complicated so far as the determination of the exact therapeutic measures to employ is concerned. It does not necessarily follow that the so-called nervines are always indicated. The underlying causes of neurotic disturbances are very often functional troubles of certain viscera, and when these are corrected the whole system seems to recover its normal tone in a very short time. Exposure, with a chill, followed by menstrual suppression and succeeded by plica has been my experience in a case. General measures soon succeeded in restoring her to a normal condition. There are some cases in which not only digestion and assimilation must be restored, but the impaired nutrition of the nerves corrected. For this phosphorus, as such, will be found the best. When stimulation of the nervous system is necessary strychnine, iron and quinine is indicated. If the sympathetic nervous system is at fault arsenious acid is the remedy upon which most reliance is to be placed. However, no hard-and-fast rule can be laid down for the general treatment of cases of plica, but each one must be treated according to the indications presented and the pathological changes observed.

A. H. OHMANN-DUMESNIL, M. D.

RECOLLECTIONS OF SANTIAGO.

EARLY in June I was detached from my regiment with instructions to organize a corps of yellow fever immune nurses from the Second Tennessee, in which there were many, and report to General Shafter.

I took about forty picked men from this regiment, went to New York, where I helped to equip the *Resolute*, under command of Captain Eaton, with abundant medical supplies, and on June 26th started for Santiago. The *Resolute* arrived in Santiago Bay early on the morning of July 3d. Captain Eaton scanned the bay for the *New York*, as he was to report to Admiral Sampson, but failing to descry her, he ran alongside the *Indiana*, which was farthest in towards the mouth of the harbor.

While Captain Eaton and the *Indiana's* officers were parleying a sentry gave the alarm that a Spanish man-of-war was coming out of the harbor under full steam. The *Indiana's* captain warned Captain Eaton to stand back, and made his guns ready. It was the *Maria Teresa* that was making the bold dash, and all of her guns were pointed forward, and she was shooting as she came. One of her eleven-inch shells passed over the *Indiana* and missed the port bow of the *Resolute* about fifteen feet. The *Resolute*, in addition to her medical supplies, also carried a large cargo of dynamite and gun-cotton for our fleet, and if that shell had struck her it would have been another case of the *Maine*. We had only two small guns, and the game was too big for us to take part in the row, so we drew back to a safe distance, but kept well in sight, where we could see everything that was going on.

The *Indiana* went at the *Teresa* like a tiger, and was pounding her right and left when the *Iowa* and *Texas* joined in, and a few minutes later the *Teresa* was on the beach, a shattered and burning mass, with her sailors, who were able, leaping through the flames into the sea. The *Resolute* ran up to assist in caring for the helpless Spaniards, and some fellow of the *Indiana* took a snap shot of me as the first man to board the *Teresa*. Probably I was. It was the most horrible sight I ever witnessed. Our shells and the ship's splinters had literally torn scores of Spaniards to pieces, and of those who were living I never saw so many different kinds of wounds. Of course, our surgeons did all they could for the wounded.

But the story of the great fight and its glorious results have already been too graphically told to be repeated at this late day. There was one incident during the fight, however, that I have heard but little mention outside of naval circles, and that is how Cervera came so very near escaping and had to be chased sixty miles. When the *Vizcaya* came out Admiral Schley thought that Cervera was aboard, and took her for his share of the big game. Away off to our left Captain Eaton saw a formidable man-of-

war and at once took it for one of the much-expected Spanish ships that Sampson had been looking for. I took a look at the new-comer and told Eaton that the strange ship was an Austrian and not a Spaniard. Eaton insisted that she was a Spaniard, and began to signal our ships of the new danger. This deflected them from the path in which the *Cristobal Colon* —the only Spaniard remaining in the harbor—must pursue, and sure enough, with an open sea before her, the *Colon* soon came dashing out with Cervera aboard.

When it was almost too late our ships discovered that it was an Austrian, and then they had to turn and give the *Colon* that long chase. I shall always believe that it was a ruse on the part of the Austrian to give Cervera a chance to escape, and she should have been fired upon for her sneaking interference.

Do you know that Hobson could have legitimately been an immensely rich man from the treasure-trove of the *Colon's* wreck if he were not such a scrupulous fellow. There was over half a million dollars in her safe, and I went down with him in the diving bells to explore what was down there. I stumbled on the repository of the treasure first. I pointed out to Hobson in our marine laws what treasure-trove is, and that all he found down there was his, but he would not look at it that way, and turned it all over to the government.

I do not subscribe to all the harrowing details of suffering the American soldiers are said to have undergone in Cuba.

It was war, genuine war—and what do people expect in war? The very word signifies death and destruction in all the horrible forms one can imagine. Of course, there was suffering among the soldiers; and that they went hungry for square meals is not denied. The fact of it is, our men moved faster than the provision trains possibly could through those quagmires. But there was never a time when they did not have such food as the Federal and Confederate soldiers for days at a time would have regarded as a feast. I do not wish to speak disparagingly, but, in truth, it should be said that there were no complaints from the regulars; they all came from the volunteers, most of whom had no more conception of what real war meant than the people in the moon.

And as to the medical portion of the campaign. That is what I was most concerned in, and I am willing to leave it to every unbiased officer and private there if it is not a fact that the ambulance corps and surgeons with every necessary apparatus were not on the field to care for the wounded, and that they were hurried as fast as horses could go to the hospital tents. At San Juan and El Caney our men were mowed down so fast it was impossible to reach them all at once, and if we had had one hundred ambulances we could not have worked faster than we did.

It is interesting to know how it came about that Shafter's order to Wheeler to fall back to a safe position and wait for re-enforcements was disobeyed, and the charge on San Juan Hill was precipitated. Shafter's orderly dashed up to Wheeler and delivered the order verbally.

"Where is your written order to fall back?" asked Wheeler impetuously.

"I have none," replied the orderly.

"Then get one," said Wheeler, and the orderly hurried back to Shafter.

Wheeler knew he did not have to obey verbal orders given by an orderly from anybody, and for fear that the orderly would soon return with the written order to fall back, he hastily consulted with the other generals and then gave the order to take the block-houses at the top of the hill.

The task of cleaning up Santiago was a herculean one, but General Wood has had it so thoroughly done that Santiago is now as clean a city—in fact, the cleanest in all Cuba—and as healthy as any one could expect in that climate.

But the Cubans! The insurgents we were fighting for. They are the dirtiest and filthiest set that ever lived. They have no more idea of decency than hogs. Of course, I mean the lower classes. There are some wealthy and educated people among them, but they are few and far between. It would be a godsend to those people, if they ever expect to be free and independent, to hire American educators, sanitarians and engineers to teach them for the next ten years how to live decently.

THOMAS OSMOND SUMMERS, M. D.

THE OCCIPITO-ILIAC POSTERIOR POSITION.

[CONCLUDED FROM NOVEMBER ISSUE.]

CASE 1.—August 6, 1887. Mrs. Maggie H., age forty-five. Eleventh child; no anæsthesia. Right occipito-posterior; spontaneous rotation to right occipito-anterior. Had slight pains for a week; one month previously had hard pains, with escape of very large quantity of water, but got up and was around until labor set in for good. Mother had an excellent getting up and babe perfectly healthy.

CASE 2.—October 19, 1889. Mrs. Sarah Arminta T., age twenty-four. Third child; no anæsthesia; duration of labor, twelve hours. Left occipito-posterior position. Mother and babe healthy.

CASE 3.—January 19, 1890. Mrs. Elizabeth M., age twenty-three. Fifth child; no anæsthesia. The position began as L. O. P., but suddenly it spontaneously changed to O. I. Ant. The fœtal heart sounds were heard to the right of linea alba and below the umbilicus. The placental souffle was plainly heard on left side and below umbilicus. The fœtal heart sounds beat at the rate of 128 per minute; the souffle sounds were 80 per minute and synchronously with radial pulse. Great tenderness elicited in left side during greater portion of time of pregnancy. Mother and babe healthy.

CASE 4.—July 28, 1890. Mrs. America K., age thirty. Second child; no anæsthesia; duration of labor, seven hours. Occipito right posterior position. Mother and babe healthy.

CASE 5.—August 10, 1890. Mrs. Lucy B., age about thirty. Has had five children and three miscarriages. Breech and foot presentation. Labor induced by the injection of soda water into the womb. Septicæmia followed, and death on 14th, or four days after delivery.

CASE 6.—July 18, 1892. Mrs. C., age twenty-seven. Fourth child;

duration of labor, thirty-six hours. Right occipito-posterior position. Delivered by forceps under deep anæsthesia. Mother and babe healthy.

CASE 7.—December 6, 1892. Mrs. J. K., age twenty. First child; duration of labor, thirty-two hours. Left occipito-posterior position. Delivered by forceps under anæsthesia. Mother and babe healthy.

CASE 8.—March 3, 1894. Mrs. Mary G., age twenty-five. Fifth child; right occipito-posterior position; no anæsthesia; spontaneous delivery. Funis wrapped twice around child's neck. Mother and child healthy.

CASE 9.—May 11, 1894. Mrs. Viola M., age twenty-seven. Second child; duration of labor about twelve hours. Right posterior position. The short forceps were applied without anæsthesia. The mother and babe healthy for several months, when the babe took on some form of tuberculosis and died in about a year.

CASE 10.—June 19, 1894. Mrs. Viola J., age twenty. First child; duration of labor only a few hours. This case was one of breech presentation and had been under the care of an ignorant midwife, which this town is full of, and on arrival I found the child hanging by the head in the right posterior position. The midwife, in her efforts to deliver the head, had nearly severed it from the body. The head was quickly turned out and efforts made to resuscitate the child, but in vain. I learned that the body of the child had been born for an hour before I got to the scene. It never breathed after delivery, but the heart perceptibly beat several times after full delivery. The mother had metritis in fine shape, but finally made a good recovery.

CASE 11.—August 28, 1894. Mrs. Flora P. S., age twenty. First child; duration of labor about twenty hours. Occipito left posterior. This was a very small woman, weighing eighty-five pounds. When this woman engaged me to take care of her in her expected confinement, she looked so small that I really believed it would turn out to be a fitting one for symphyseotomy, and had mentioned the matter to a brother practitioner, telling him that I believed I would be justified in performing the operation, as she was so very "narrow in the hips." However, when labor came on, I concluded to trust the forceps, as I had done before. She was deeply anæsthetized, and the long forceps were applied at the brim. She was delivered successfully without laceration, but the child's head was badly marked with the blades. Behind the right ear the skin was broken, and the babe never seemed right from birth. It almost immediately began to have spasms, and kept them up for about a week, during which time it no doubt had at the least calculation five hundred convulsions. It began to thrive, and looked plump and well, save that its eyes were badly crossed, and it could not walk at the end of eighteen months. The mother persistently complained of a feeling as though her hips were apart. She said she felt them grate when walking.

CASE 12.—October 23, 1894. Mrs. Josephine C., age thirty-three. Fourth child; duration of labor about ten hours. This was a case in which the vertex spontaneously rotated from the occipito right posterior to occipito right anterior. Mother healthy; babe died in about thirty days of some respiratory trouble.

CASE 13.—June 24, 1895. Mrs. George M., multipara; duration of

labor only a few hours. Occipito right posterior. This was a case of spontaneous delivery, and in which the mother and babe had a healthy puerperiam.

CASE 14.—January 9, 1896. Mrs. Maggie H., age twenty-five. Third child; duration of labor, eighteen hours. Very pendulous abdomen; so much so that it was necessary to put around her a wide band to raise the belly up in a proper position. The perineum had been torn almost into the bowel on a previous labor; was very nervous and begged for chloroform. This was a case of occipito left posterior. After the birth of the head the body was hindered in its descent until the babe was almost dead. The trouble was due to a large, sessile spina bifida situated in the dorso-lumbar region. The spina bifida was ruptured in delivery and several ounces of fluid escaped. The babe was resuscitated with the greatest difficulty. The sac was ligated and the babe lived five days. It died of convulsions, which, before it died, firmly contracted the forearms upon the arms, the hands upon the forearms, and fingers upon the palms. It resembled a case of strychnia poisoning.

CASE 15.—October, 24, 1897. Mrs. Molly McD., age nineteen. First child; duration of labor, forty-eight hours. Left posterior position. A small, delicate woman. The abdominal walls were tender and the patient nervous and apprehensive of not getting along all right. I found a hot, tender, excoriated vagina and external genitalia. The os was barely beginning to dialate and cervix somewhat long. The patient did not bear her pains well, but would flinch and put off the pains. I thoroughly douched the vagina and concluded to administer a hypodermatic injection of morphia and atropia, to give time for the soft parts to relax and moisten. The labor continued in this manner for about thirty hours. The cervix being so long it was constantly being pinched between the head of the child and the pubis, and in consequence she would not bear down and have a good, strong pain, but dallied along till I concluded to apply the forceps. This she dreaded extremely, and would not hear to taking an anæsthetic through fear of it, and I tried to apply them without it. But when I undertook to apply the forceps she was so extremely frightened that I had to desist. I then sent for assistance, and Doctor Danford of this city responded and thoroughly anæsthetized her, and I applied the blades with great difficulty, but finally succeeded in adjusting a small pair and made traction carefully and intermittingly, but with great force, so much in fact that the blades slipped off, and I applied a heavier pair and exerted all my strength, time after time, for several minutes, till I was utterly exhausted. During the traction an old midwife wanted me to desist, as she thought it was useless to pull any longer. Finally, the old midwife became so sure that I could not make the delivery that she demanded (if she did not command) a cessation of my efforts, saying, "I tell you that you can never deliver this child till you split its head." I replied that I would not think of such a thing as committing such a murder, and kept on pulling. I at this time exchanged places with Dr. D. and let him pull, telling him and the by-standers that I had delivered children in cases as apparently hopeless as this one. However, we worked and worked till it did look as though we would not be able to deliver the child, and we sent for more assistance, telling the messenger to say to the

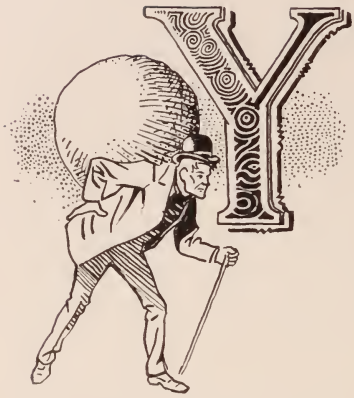
doctor to bring all the instruments he had, for we feared that we would have to perform craniotomy at last. But the doctor and I did not give up or relax our efforts to deliver while waiting for more help, for by this time there was a perceptible descent in the head and we were correspondingly encouraged. So that when Doctor Miller, who answered our summons, entered the room the head was being rapidly delivered. As Dr. D. was quite tired out, we asked Dr. M. to finish the delivery, which he did in a very short time. The babe was quite asphyxiated, but on proper means being applied it was soon resuscitated and became quiet healthy. The mother made a rapid recovery, except that she had a little fever for a few days, which came on in a couple of days after the birth. She was up and around in two weeks, and on the twenty-first day I carefully examined the cervix for lacerations and found quite an extensive tear on the left side, extending up almost to the vaginal junction, and some two or three slight ones, making what is known as a "stellate laceration." The perineum was not lacerated.

I have examined this woman in the last day or so, and find that the smaller lacerations of the cervix are healed, but the extensive laceration on the left side is now about three-quarters of an inch long. Of course, the woman has had and still has leucorrhœa, which I tell her will remain till she has the lacerated cervix stitched. The babe was as bright a child as any I ever saw, but in just two months it took a little bronchitis, but was sick only a couple of days when, on the morning of the third day it was found dead in bed on its mother's arm.

CASE 16.—November 19, 1897. Mrs. Rosanna H., age forty. Ninth child; duration of labor only a few hours. Right posterior position. This was a very easy labor, the woman being short and fleshy. The perineum had been torn rather badly in a previous labor. The fœtal heart beat in the right inguinal region before birth 144 times per minute; the cord immediately after birth 160 times per minute; a male child. As this was such a surprisingly easy and rapid birth, I made sure of the position by an actual inspection of the head as it rolled out from under the pubic arch. The number of the fœtal heart beats in this case would cast doubt upon this diagnostic sign in determining the sex before birth.

CASE 17.—April 22, 1898. Mrs. James D., age———. Sixth child; duration of labor, fourteen hours. Right posterior position. The perineum had been lacerated in a previous labor. The placental souffle was heard above and to the right of the umbilicus and 80 per minute, synchronously with the mother's radial pulse; the fœtal heart sounds were heard below and to the right of the umbilicus and were 124 per minute. As the occiput rotated toward the pubis, the fœtal heart sounds approached nearer and nearer the linea alba. A male child; mother and babe healthy. I wish to say that in examining this woman externally to determine the position of the head of the child, I very plainly made out the contour of the child's face by palpation. The nose was as plainly delineated as one could desire, as were also the superciliary ridges and orbits of the eyes, besides the limbs. J. J. CONNER, M. D.

DR. JIM'S ATLANTEAN TUMOR.



YES, sah!" said he, "nature is mighty; yes, mighty big, mighty powerful—the only might in this world. Man may be mighty, but he is the one-sixteenth millionth part of nothing alongside of nature."

The speaker was a tall, straight, military-looking character, about six feet and two inches tall, with a well-shaped head, having a straight square brainy-looking forehead. Strong, well-arched eyebrows overhung two large black brilliant eyes, which indicated language and observation. A straight strong nose, which seemed to well support the forehead, a thick heavy moustache around a firm-looking mouth, while a well-shaped imperial adorned a firm-looking and agreeably-shaped chin. This gentleman had a voice which was vibrant, deep and mellow, and which courted interest from the very apparent intensity and earnestness of utterance. Everything about this man, looks, actions and all, beamed in strong characteristics.

He was thoroughly definite, never undecided; what he knew was thoroughly known, and there was nothing half-way about him. For he was an entity and entirety. He was not insignificant-looking himself; hence, all of his talk was significant and important. Now, this gentleman, we are thus describing, was sitting upon the veranda of a hotel at a prominent watering place, conversing with three other gentlemen, who were grouped around him and were listening earnestly to the conversation, and particularly the part uttered at the head of this article, concerning the mightiness of nature, and from their talk it was soon shown that they were all physicians.

"That's rather a broad statement, is it not, Dr. Jim?" observed one of the gentlemen; "for it appears to me that nature would not be complete without man."

"Why, of course not, sah! But I only spoke comparatively. Now, then gentlemen, as you were talking about big tumors and their wondrous size and growth, I would like to give my experience, which I think is unusual. The largest tumor which has been my good fortune to see I saw when I was a student. I studied medicine in Mucsat; my preceptor was the famous Dr. R. J. Doubtless, you have heard of him, for he was a surgeon of remarkable ability; yes, sah, very remarkable ability. Patients were sent to him from many different States, and, as I repeat, sah, he was not only a remarkable student, but a wonderful operator. A man small in stature, big of head, and almost every cell in him was made of nerve. By gad! gentlemen, he was himself like a new cell; for he was just pure function—function all over. He would essay any operation. He was rare in diagnosis, rare in breadth of operative ability, and constantly rare in resources. If there ever was a God-made surgeon upon this earth, Dr. R. J. was one. I tell you, gentlemen, he seemed to possess a power over this economy of man which was marvelous. Why.

a spouting blood vessel seemed to shrink under his gaze and stop its persaltum impulse without ligature; fractures were placid and self-adjustable in his hands. A wound seemed to look benign and better when he approached. There seemed to be a halo of power about the man which almost intuitively and perceptively influenced morbid and errant nature. Why, sah, he had brains at the ends of his fingers. I believe that each Pacinian corpuscle at the ends of his fingers had more brain in it than some men have got in their heads. Yes, indeed, nothing seemed to thwart his diagnostic powers. He was inerrantly quick and direct as a stroke of lightning; yet he was as affable as an April sunbeam. Indeed, to me it has ever been one of the gratifying things in my life to have been brought in contact with and associated with such a man. Why, he inspired confidence the very instant you met him. A conscious power seemed to move in and about him; yet there was not a loud thing in his make-up. By gad! gentlemen, I'll tell you that in his examinations of a case he presented the posture of power; almost as strong in outline as a statue. Intuitively and unconsciously he placated every irritated element engendered by nerve effects. He seemed to as readily soothe every nervous symptom as an anti-spasmodic, and always seemed to beget a responsive and sympathetic element, backed by an abiding faith, in any patient under treatment. Aye, he was a surgeon; but in those days, gentlemen, the surgeon had to keep up his God-like elements to be a surgeon. This man had the eye of an eagle, the heart of a lion, the hand of a woman, dauntless, fearless and determined, with the kindly soul of a ministering angel. Such, gentlemen, was my preceptor, Dr. R. J.; but in my admiration for Dr. R. J., I am not getting along with the subject of a tumor."

"The case that I want to tell you about was a man who had come from a neighboring State; every physician this man had consulted had refused to operate, and hearing about Dr. R. J., he had come to consult him. Upon my word and honor, gentlemen, when I saw this man, it was beyond my conception that nature could ever under any condition in this life afflict and torment a creature as this man was. Now, then, gentlemen, let me describe him: You have seen those statues of Old Atlas carrying the world on his shoulders and with his hands supporting his hips. But then, this man just discounted Atlas. There was an immense tumor on the man's back, which extended from the nape of the neck to his buttocks. Instead of standing on his legs, like Old Atlas, he had a small crutch in each hand, and he walked on all-fours in this manner, at an angle of about forty-five degrees. He looked like a man with a balloon attachment. He walked, as I tell you, with these crutches and legs, carrying this tumor, which looked much larger than the man. Now, then, I was with Dr. R. J. when he made the examination. He said that it was a myofibroma, and that he believed he could remove it without any trouble; but that in this case it was an instance where a man had to be separated from a tumor. Now, then, I carefully watched and heard the examination Dr. R. J. made, but was afraid to ask how he intended to operate. For while he was ever a very pleasant man, yet he never was communicative until the time came for operation, and then directions were never lacking in explicitness, point and efficiency. Now, then, gentlemen, the day came for operation; in the meantime I wondered how in thunder he was going to do it; and this was the arrangement made: A strong table was got, and

in addition to that two wood horses, about seven feet high—the same kind used for plastering ceilings. These were put at the end of the table and a plank floor put on the top of these wood horses. Now, then, a fellow-student, with me and several doctors assisted in the operation. My fellow-student and I got on the top of this platform made by these wood horses and planks, and the planks were spread apart so that we could poke our arms down through the space thus made. We were given the following directions: Each one of us had a cotton hook; you all know these cotton hooks with their sharp curved point and wooden handles; the same as the laborers use to hook a bale of cotton. Now, then, this man with a tumor was put on the table and chloroformed; then each one of these hooks was stuck in the tumor—one in the farther end and the other in the upper end—and when Dr. R. J. gave the word we were to raise this man up, and while in this position, holding him up off the table, virtually suspending him in midair, Dr. R. J. was to remove the tumor. Now, then, gentlemen, upon my word of honor, marvelous as it may seem, that tumor had a pedicle about the size of my arm, and it was harder than grizzle, and we felt it grate as the knife went through; and I'll give you my word of honor that he did not lose an ounce of blood, and the tumor, as near as I can recollect, weighed close onto one hundred pounds. But the result was perfect, and the wound healed by first intention. And here was a case which illustrated where

" 'Diseases desperate grown,
By desperate appliances are relieved,
Or not at all.'

"Still, it was unfortunate, after all, in one respect only, and that was that this man was never able to assume a perfect upright position, for the tumor had been of forty years' growth. Now, let me tell you, sahs, this is what I call brilliant surgery. Surgery that any man could be proud of."

"But, Dr. Jim," said one of the gentlemen, "that was a mighty big tumor, particularly of that character, and particularly in that locality."

Here another gentleman said: "Why, doctor, didn't Dr. Jim say in the beginning that nature was mighty; and even in this instance she was certainly mighty in her morbidity."

"Aye, sah," said Dr. Jim, "that's the time where your gigantic intellect came to your rescue. Yea, I aver it, experience is the dynamo 'Crucis,' for all is but lip wisdom, which wants experience. Upon my word and honor, gentlemen, that was a country at that time almost perfect: a perfect clime, perfect surroundings, perfect productions, perfect brain in perfect men and women. By heavens! it even made perfect tumors. Yea, to repeat Shakespeare:

" 'To gild refined gold, to paint the lily,
To throw perfume on the violet,
To smooth the ice, or add another hue
Unto the rainbow, or with taper-light
To seek the beauteous eye of heaven to garnish,
Is wasteful and ridiculous.'

"Aye, it would have been 'wasteful and ridiculous' to have tried to improve that country. Nature there made everything grow. Indeed, we don't have any such doctors as R. J. now; nor, upon my soul, do I believe we have any such tumors."

"Yes," said one gentleman, "thank heaven that it has become irksome for nature to contribute such burdens upon man's back at this present time."

"But, Dr. Jim," said another, "you didn't use antiseptic and aseptic agents in those days. And yet, still you got a perfect result."

"Right you are, Doc," said Dr. Jim. "By George, sah, such was the purity and perfection of air down there in that region of the country that not even a microbe could find sufficient pabulum to enable him to procreate his own species. Yes, sah, I honestly know it to be a fact that a microbe had to hustle so inordinately hard for a living that it either died of inanition, or the worry incidental to his trouble of living led him into neurasthenia. Yes, of course, that was befo' the wah; but what do you find now, gentlemen? Yes, sah, I say that everything now has become so corrupt and vitiated that you have even got microbes saturating the thoughts of men, impregnating and warping their morality, and these microbes now become fat upon purity and sanctity. Aye, sah, they are even upsetting conscience and honor. Yes, I say, gentlemen—by the eternal! I'll undertake to prove bacteriologically that we have microbes doing any and all things in this life, and particularly in this grand country of ours. They do everything except pay the national debt. Aye, again, gentlemen, I'll assert positively, that the biggest monopoly, combine and trust to-day upon the face of this earth is your microbic trust. Yea, they are the bloated bondholders of this sphere. They have cornered man—I repeat it, they have cornered man, and are now sapping his vitality. Wot-tel, gentlemen, the microbe is a foreigner, anyhow! First discovered in Germany and named in Ireland, and then brought here and thrust upon an unsuspecting, virtued national community. Yes, by heavens! I always was a know-nothing and assert that those microbic foreigners should never have been permitted the inalienable and glorious rights of American citizenship. Never—I repeat, never, sah! But now where is the microbe? Why, he is the freest American of them all. I'll tell you, gentlemen, there are many things I cannot understand, but it appears to me that nature could make better use of man than she does. For, upon my soul, I cannot conceive of any worse use nature can put on man than to microbe him to death. If I had my way, I would phagocytosinate every microbe."

"Well, gentlemen, I see Old Miss waiting for me, and I must be going; but if we meet to-morrow, I'll tell you about another tumor almost as big."

With this Dr. Jim left. Several sighs of regret were heard, when one of the gentlemen said: "Yea, nature is mighty, saith Dr. Jim; mighty big, mighty powerful. Aye, too, as Dr. Jim says, nature is the only might in this world; but I maintain that man is mighty and the biggest part of nature, and that he is very much more than the sixteenth millionth part of nothing. But I am free to confess that Dr. Jim is the biggest sixteenth millionth part of a liar which I have ever seen in this world, or else I don't know."

"Aye," said another, "Dr. Jim is not much of a degenerate, after all. He copies after the original make; for Apollo was the god of physic, and he too played upon a tuneful lyre."

"Yes," said another gentleman, "Dr. Jim is, indeed, lyrefully pleasant and germfully amusing. But, then, I'll pay homage to him by quoting these ill-constructed words from Shakespeare:

"When griping monotony our souls hath wrung,
And vapid surroundings our minds oppress,
Then Dr. Jim, with his silvery tongue,
In speed and comfort doth lend redress."

WARREN B. OUTTEN, M. D.

Infected Cigars.—It is stated in an American contemporary that the San Francisco Board of Health have discovered tubercle bacilli in the end of newly-manufactured cigars, and the explanation given of this is that many of the cigar makers are in the habit of moistening their fingers in the mouth preparatory to giving the final turn to the leaf at the end of the cigar. The allegation that by this repulsive habit the infection of tubercle could be conveyed is sufficiently important to demand attention. Apart, however, from this consideration, the idea that in the manufacture of cigars the polluted saliva of the operatives should be used, must come as an unpleasant revelation to most smokers. More information upon this subject is certainly desirable, both in the interests of the cigar manufacturers as well as of those who "take" their tobacco in this form. Despite the fact that the usual custom is to cut off the end of a cigar before smoking it, we nevertheless cannot see why, if the habit to which reference is here made prevails, it should be allowed to continue. A further disturbing feature is that tubercle is not the only malady which could be transmitted by infected saliva.—*Medical Press and Circular.*

Unlicensed Lunatic Asylums.—From time to time cases come to light in which medical men are prosecuted for keeping lunatics without having their houses registered for the purpose by the Commissioner of Lunacy. The unwisdom of such a course is obvious, for in such a case the medical men may at any moment find themselves involved in the meshes of an unpleasant public prosecution. The train of legal complications which has overtaken Dr. Reichardt, of Ewell, have been of a peculiarly involved and protracted nature, and, whether the charges brought against him be ultimately proved or not, the immediate anxiety and monetary loss must be considerable. The indictment alleges that he had taken three lunatics, one without an order, under his care in an unregistered home. One of the inmates escaped and committed suicide. A grand jury at Kingston-on-Thames Quarter Sessions returned a true bill; but it appears that the defendant was committed to the Central Criminal Court in June last, but has since been ordered for Quarter Sessions by the Privy Council. On technical grounds the trial has been once again postponed until the sitting of the next court. A case of this kind should serve as a wide-spread warning. —*Ibid.*

BATTLE HYMN OF THE REPUBLIC

By Maj. Thos. O. Summers, M. D.

WRITTEN ON BOARD THE RESOLUTE AFTER THE DESTRUCTION OF CERVERA'S FLEET.

Wake, Columbia, wake to glory!
Tell the nations Freedom's story,
Let it flame in letters gory,
    Sound it through the universe!
Rise, young lion of the ages,
Armageddon of the sages,
Strike thy name on history's pages,
Lift from earth the despot's curse.

On thy star-set banner blazon
Answer to the world's eleison
Oriflamme for men to gaze on,
    Floating in the van of Time;
As the century's dawn doth heighten
Let thy blazing torch enlighten
And thy glorious purpose brighten
    With a grandeur all sublime.

Not for conquest is thy mission,
Not for vengeance nor ambition,
But to lift up man's condition—
    Glorious sword of Liberty!
Hear the distant thunders muttering,
See before thee thrones are tottering,
While the long-slaved world is uttering
    All its impulse to be free.

Welcome, then, the storm of battle,
Cannon roar and musket rattle;
Men no more like driven cattle
    Shall to monarchs bow the knee.
Heir of ages, rise in splendor;
All thy might to Freedom tender;
Draw thy bright blade to defend her,
    Go thou forth to victory!

MAN'S INHERITED MARTYRDOM—A FITFUL STUDY OF DEGENERATION.

By Dr. Warren B. Outten, of Saint Louis.

[CONTINUED FROM THE NOVEMBER ISSUE.]

CHAPTER VIII.

"'Yea, live dust is man, dirt is my brother,' says the street sweeper. 'Aye, my little man, you were clay; but you are ash to-day,' chuckled his tailed majesty. So all things may mend when all things end. Here will I end.

"Come, come, thou witty man," said Theo Celsus, "bide yet awhile, and I'll tell thee of the theme this Cohort must soon assail. Yea, 'tis called Neurasthenia—that sad plight where vigored man by birth, hard work and nerve strain becomes prostrate, truly weakened by nerve prostration. Yea, this poor chap hath unmanned sap."

"Perdie!" said Vegge Go, "but thou hast said a fat-lettered word—Neu-ras-the-nia. Oh! ah! thus it is—Neu-ras-the-nia. Gods! it hath a full-fledged bray in it; truly, it brings to mind ears, and sound o'er too long to be a bird's. Even so, 'tis well. But, surely, 'tis well that thou art not tongue-tied, as thou couldst not have said it. But, truly, doth it make man prostrate? So, indeed, it molly-coddles his vigor, mizzles his strength? Ah! well, I've had enough, and more than enough goes to pot."

With this, he left with his hands folded behind his back. I had scarcely returned to the waiting-chamber when there came a hesitant knock at the door, and there stood before me a well-dressed gentleman, with pale, feeble, and wrinkled face. He was quickly invited within. As I viewed him, thus will I describe.

He was of medium size, slender, pleasant of face, but thoroughly sad and expectant in expression. I noticed, too, that he was weak and tremulous in motion. His eyes were dark in color, set well back in his head, while around his orbits were darkened rings which only added to the tremulous, watery yet brilliant color of his eyes. He was smooth-faced; his nose was somewhat small, but well-set between his eyes. His ears were implanted somewhat laxly upon the side of his head. His cheek-bones were high. His weak jaws and slender neck, together, seemed unduly elastic; for he could but twist to one side or the other, as seemed to suit his fancy; and he never seemed to be rigid or stiff. And, again, ever now and then I would notice a quivering of either limb, an uneasy shifting in his chair; and a sigh occasionally seemed to well involuntarily from his breast.

'Twas soon I engaged him in talk, and wrote down as given to me his story. While telling it he would ever and anon put his right hand over his heart, press it there, and then slowly fill his lungs. And when telling the exciting portions of his experience, great drops of perspiration glistened upon his brow or trickled, sweat-like, down the side of his face; when he would take out his handkerchief, wipe off the palms of his hands, and mop off his brow and neck in tremulous haste. And I noticed more than once that a slight tremor shook his frame. And here doth follow,

in truest way, what was then written down. Nay, forsooth, 'tis strange; but the very fact of my writing seemed but to add to his already great desire to talk; and it was with difficulty that I could stop his wayward course. And this is his story:

"Sir, my grandfather was a nobleman of France, and, under dire circumstance, owing to the ill-timed action of my grandfather's wife's relatives, which had gravely offended Bonaparte, he, my grandfather, was compelled to leave his wife here in London. But, rest assured, there did ever exist the most perfect love and strong attachment between the twain thus parted. For, ever and anon, when opportunity did but offer, this husband would visit his wife—always necessarily in the most secret and hidden manner.

"Now, while this mother stayed in London she gave birth to two children—a boy and a girl, whose birth, forsooth, for reasons strong and good, were kept a secret most profound. For, it was averred, that if it should be known that this grandfather had quitted France he would have been placed under the ban of dire misfortune, as it was the course of the law in that land to shoot or behead such offenders. Now, this son who had been born in London was, at the tender age of seven years, sent to school, and was destined from that time never again to behold his mother. Thus, was he sent from one school to another until at the age of nine years there came from some source unknown due provision that the lad should be apprenticed. But with this fate interfered, in the person of a dear friend of his, who surmised that he was by birth highly connected. This good friend averred that he, himself, would adopt the lad and bring him up honorably rather than allow him to be degraded thus.

"The lad was, therefore, sent to a public school, whence he went to college, where he received his academic degree.

"Now, it appears that when the young man had thus, in honor, left the college it was quite without knowledge of his noble relatives. When it was finally made known to them they showered upon him lavish means through certain convenient bankers.

"After a time spent in London he purchased a commission in the British army, which he held for seven years, then retired. But, as time did grow apace, there developed in his mind a grave and pressing desire to know the source of his handsome competence; aye, still more: to discover to whom, indeed, he was indebted for his very birth; and, forsooth, why he was thus unceasingly debarred from communicating with these hidden benefactors. And yet still another purpose moved him: to find out where his sister was, for he had no doubt but that she had been treated even as he had been originally—in a harsh and cruel manner. Hence, he went to Paris, where he did abide for a time. From one story to another was he led. Thus it was told him: that two sisters had been born to his mother prior to her removal from France, and that these sisters had married noblemen, one of whom was a prince. Now, worry did beset this soldier, for he had married after leaving the army; and I was begotten while my father was in his direst woe.

"Being thus foiled, my father did not stay in France, but returned to London and became a merchant. He thrived and did well; but it seems that intemperance was this man's bane.

"My mother was a delicate woman, oft troubled with dire nervousness.

"Now, my father died; but with means left I finished school and took my academic degree and became a builder.

"Now, for years have I been in poor health; for oft and on for weeks at a time am I troubled with headaches. The palms of my hands are always cold and clammy; my face flushes at times, e'en when I am not at all excited. Aye, too, for weeks at a time do I pass sleepless nights, although there is naught to worry me. I have every feeling of exhaustion; and, at times, my heart flutters as if it would stop beating; and, at times, when in company, my legs twitch in such a way as to rob me of all pleasure and make me but an object of remark. Hence, I refrain from social pleasures.

"Now, I desire to tell a thing that is bitter woe to me; that but robs me of my worth as a builder; and that I found out by strangest coincidence: Once when I was upon a pleasure trip, with well-liked companions, this strange experience happened. I had ever a dread of heights, but always upon them seemed able to control myself. Now, then, with these companions we ascended a mountain's height. But I was ever weary and refrained from looking down the steeps. When we had reached the top of the mountain we came upon a narrow cleft that had rivened and twained the mountain, and that was reached almost to its base. Now, my companions, in banter, had each and every one looked down into this deep abyss; and one did go e'en to the very edge and peer down. They saw too soon my dread and hesitation; and, as they saw it in thoughtless folly, but insisted the more that I should do as they had done. Nay, I then told them that I would not do it, e'en for the world; for that such was my infatuation and fear that naught under heaven could tempt me to peer down into that deep abyss; for I but felt that if I did so I would surely jump into its direst depths.

"Nay, e'en as I did think of it, my heart was stilled, my breath came as if I were in tensest labor, and from every pore came cold perspiration. I felt my very eyes protrude, and must have been a picture of fright as, in piteous appeal, I begged to be let alone.

"But such was not to be; and, in foolish force and banter, they pushed me towards the edge of the abyss. Now, then, I begged and pleaded hard that, if such thing had to be, they would but let me lie prone while two persons held each a leg, and thus I would crawl and peer down. It was done.

"Now, as I did but glance down into that yawning abyss, a shock came, and with it an eager desire to jump down. In my struggle to get free from them I lost sane consciousness, and when I was brought to, my four companions did, indeed, appear in woeful plight—with excited faces, clothes begrimed, hair disheveled, and gazing at me in anxious curiosity. And this, they said, is what had occurred:

"When I got to the chasm and peered over, my scream rent the air, and I did in very frenzy struggle with might and main to get down into that abyss. Nay, it was a fearful struggle; for as they pulled me away my strength had almost conquered them, and I became unconscious—thus relieving these foolish fellows of further struggle. Nay, they told me that naught would tempt them again to prompt such fright and danger, as they had suffered therefrom almost as much as I.

"From that day since I have had an eternal dread of heights. Nay, not only that, but I find myself in constant dread and utterly incapable of controlling my will when I walk on the street with my right side next to the buildings. Thus must I ever walk with my left side so fixed. Nay, if I should e'en desire to go to a given place on a street, I must do double walk to get there."

Just as this story was written down, so I handed it to Dr. Theodorus, who afterwards examined and talked with this gentleman.

[TO BE CONTINUED.]

HISTORICAL SKETCH.

THE CELEBRATED DOCTOR MEAD, 1673-1755.

Mead deserves more than passing notice. Of English birth, he was educated in Holland at the famous University of Utrecht, where he studied botany under Herman and medicine under Archibald Pitcairne. Afterward he traveled into Italy, and in 1695 received his degree of Doctor of Philosophy and Physic at Padua. In 1702 he brought out *A Mechanical Account of Poisons*, and shortly afterward prepared for the Royal Society an account of Dr. Bonomo's discoveries on cutaneous worms which generate itch. In 1703 he was elected a Fellow of the Royal Society, and on the accession of George II. was appointed his physician-in-ordinary. Mead was a generous patron of science, and enjoyed the friendship of many of England's greatest men. It was he who persuaded Guy to give his fortune to Guy's Hospital. He also urged Captain Coram to establish the Foundling Hospital. It was his influence which enabled Sutton to secure letters patent on his invention for extracting foul air out of ships.

Captain Coram.

Dr. John Freind, who wrote the *History of Physick* while confined in the Tower of London, addressed his work to Dr. Mead. Mead attended to Freind's practice during the latter's imprisonment, and when he was released presented Freind with a bag of guineas containing all the fees

received from Freind's patients. For nearly fifty years Mead was at the head of the London profession. He came near to the discovery of the germ theory of disease, as is evidenced by his writings on leprosy, the plague, and other malignant affections. He wrote on the influence of the sun and moon upon human bodies; a discourse upon small-pox and measles; on hydrophobia; and upon sacred medicine. In the *Medica Sacra* he attempted to account for the diseases mentioned in the Bible upon natural grounds. His plates of the head of the viper show him to have been an expert comparative anatomist. Mead's library was large for his time, comprising 10,000 volumes.

Sketch by Hogarth of Richard Mead, M. D. F. R. S., as a Militia Drill Sergeant.

In the *Mechanical Account of Poisons* Mead settled an important question, viz.: that the viper emits a veritable poison with its bite. For some time a contest existed between Redi, who believed in a veritable poison, and Charas, who adopted a notion held by Van Helmont, that the effects of the bite arose from the "enraged spirits of the animal, and that the yellow liquor was a pure and innocent saliva." Mead settled the question by some conclusive experiments.

Many anecdotes told of Mead have become part of our literature. His home was always open to the learned. His fame went abroad and no foreigner of note considered a visit to London complete without calling on the celebrated doctor.

JAMES MOORES BALL, M. D.

DEDICATED TO GLASGOW SCRUBBING SCHOOL OF MIDWIFERY.

ASEPTIC MIDWIFERY (SO-CALLED).

With fingers weary and worn,
  With eyelids heavy as lead,
A doctor fresh from a labour case
  Lay down on his welcome bed.

He was one of the Glasgow school,
  Whose creed is scrub and shave;
Frightened to death by the microbe scare,
  But otherwise bold and brave.

Scrub! Scrub! Scrub!
  Till the woman's parts are sore;
And, Scrub! Scrub! Scrub!
  Till the microbes are no more.

For its oh, to be a slave,
  Along with the "barbar"ous Turk,
If now I've got to scrub and shave,
  And call it doctor's work.

—A. D., in *Medical Press and Circular.*

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VALEDICTORY.

With the issuance of the December JOURNAL, the undersigned severs his connection with this publication as chief editor. Hereafter he will be an associate editor. After five years of journalistic work, he finds this course necessary because of an increasing practice, and for the further reason that he wishes to complete a literary task begun long ago and often postponed for the exigencies of the hour. In naming as his successor Dr. Warren B. Outten, of St. Louis, he feels that the TRI-STATE MEDICAL JOURNAL AND PRACTITIONER is in good hands, and that its future will be as stable as its past has been phenomenal. No monthly medical journal, founded in America in the last ten years, has had such a rapid growth, or has received more encouragement from an indulgent profession. The opponents of the retiring editor have his commiseration; his friends have his hearty thanks and best wishes for a Happy New Year.

JAMES MOORES BALL.

A WORD.

The editor, in assuming editorial control of this journal, desires to say that he has only one purpose in view, and that is to aid medicine to the

best of his ability. He has lived in this world too long to think that he has the ability to reform this world's fixed, inherited, and tried ways. He seeks other things than acrimony and combat; he will strive to be progressive and comprehensive in his views; locality or personality have no response in him. The best that is left in any man's mind at his age is broad, just charity; he does not believe that any age or period in the world's history has shown that there was ever enough, let alone there being a surplus of charity. It is about the only thing on earth that human nature has not been surfeited with. He does not propose to enter in a long tirade as to what he hopes to accomplish, but will let time and work show. He believes that no point offers greater opportunities or finer field than St. Louis as the center of the Central West. He asks only aid as he deserves it; and he is well aware if failure comes, it will be in the man and not in the surroundings. THE EDITOR.

THE REMEMBRANCE OF WILHELM MEYER.

On the 25th of October there was unveiled at Copenhagen, in the presence of many noted persons, a statue of Wilhelm Meyer, the great Danish physician, whose name will ever be connected with one of the most important discoveries in medicine. The simple act of exploring the upper pharynx with nature's probe enabled the Dane to find a pathologic condition easily removed, but if not removed capable of producing frightful results.

That the medical profession is often headstrong in adopting worthless procedures, while often slow to accept actual benefits, is evidenced by the history of the adenoid operation. It was in 1867 that Meyer made his discovery; yet when he visited London in 1881, most of his audience, although composed of specialists, were ignorant of his operation. But, as Sir Felix Semon (who unveiled the monument) said: "Truth, though slowly, ever forces its onward way, and when Meyer, three years ago, closed his eyes, he had the satisfaction of knowing that the value of his discovery had at last been universally recognized." In the last decade no operation has given such favorable and satisfactory results. All honor, then, to the great Dane who discovered and made known the existence of adenoid growths.

AN ASTONISHING STORY.

It is said that war gives no opportunity for repeating a mistake. From our past war it would seem that this may refer to battles, but certainly not as regards sanitation. The result of a past is ever a good teacher. Assertive politicians cannot make lie out of truth nor truth out of lie; but the marked attention imposed by their intemperate talk has been of rare benefit in bringing army sanitation under thought and discussion. From all that can be gleaned, enough is known to maintain and demontrate the assertion that the diseases in the army in 1898 were less fatal than in any equal body of men during our late civil war. Yet it is useless to deny the fact that the poor administration of sanitary rules led to a useless and almost criminal waste of life. Surgeon-General Sternberg is of the opinion that the acceptance at recruiting stations of so many youths from eighteen to twenty-one years was a serious blunder, and that

aiding materially the results was the fact of the imposed necessity of employing six hundred and fifty surgeons from civil life. No argument is needed to prove that these surgeons' lack of experience in the treatment of men in the field was a positive and undoubted factor in the production of mortality. In fact, it may be said that the hospital corps was largely extemporized, hence experience had not been had, hence inefficiency. The history of the navy during this war shows the positive and marked value of organization and experience. From what we glean, the health of the navy was remarkably and extraordinarily good, and that in spite of the fact that nearly the entire force of 26,000 men served in the tropics, but of this entire number only fifty-six died of disease during the five months ending with November. Eighteen were killed in action and eleven by accident; all of this amidst ponderous power of machinery and actual battle. Surely, this is almost beyond conception; for if ever adverse conditions were turned into genial and almost harmless by-play, this five-months' story of the navy shows it. At Manila it would appear that the health on board of the ships at that point has been better than at any former period; and here is, indeed, a splendid vindication of the wonderful efficiency of intelligent hygiene and perfect discipline—a thing which seemed to bless the navy but ignored the army. Here is, indeed, a phenomenal record: the total loss in the navy for 26,000 men, from all causes, was eighty-five, or 8.19 per thousand, from disease. We do not believe that there are many communities in the country can show a much better record for five months. It is stated one section of the country, and that is New England, has kept an exact register of regimental losses. The total number of deaths in New England, outside of Connecticut, whose small figures are incomplete, was three hundred and ninety-eight, or 3.6 per cent. Of 3200 Massachusetts troops sent to tropical regions only six died of yellow fever. In the troops sent to tropical regions from five New England States, ninety-three died of typhoid fever; other fevers except yellow fever, twenty-six; dysentery, seventeen; malaria, fifteen; pneumonia, seven; and heart disease, seven. Massachusetts lost in the war nine killed and two hundred and eighty-nine from disease. Here is, indeed, an unusual and remarkable fact: that no soldier from the other New England States was killed in action. Maine lost forty-four by disease; New Hampshire, thirty; Vermont, twenty-seven; Rhode Island, nine. Among two hundred and sixteen Harvard men who enlisted in the war of this year, two were killed and nine died of disease. The number of Harvard men who lost their lives in the civil war was four hundred and forty-one. Surely, here is no hideous tale, no soul-stirring series of events; for the number engaged and the acuteness of conditions certainly disprove the assertions of gross mismanagement. Had sanitary conditions been in experienced hands, probably no war which has ever occurred on earth would have shown such insignificant losses. Indeed, the history of this five-months' war has been so completely filled with unusual surprises as to make it approach the lines of a fairy tale.

IS THE FAMILY DECLINING?

Statistics are a good deal like opinion: they seem to be at the command of the individual who uses them. We have recently seen asserted that there are fewer marriages in proportion to population than formerly,

that families are smaller, and that they are less coherent, less lasting. From 1867 to 1886 divorces in the United States increased 157 per cent., while the population increased only 60 per cent.

In England the marriage rate fell from 17.2 per cent. to 15.2 per cent. in 1881; and from 1873 to 1888 the ages of men and women who married rose respectively from 25.6 and 24.2 to 26.3 and 24.7. The rise in the number of divorces, 1860–1885, was universal. In 1871 England and Wales show one divorce to 1020.4 marriages; in 1879 one in 480.83. It is stated by J. H. Muirhead, one of the causes for this is the change due to the whole modern movement of liberation—of subjects from sovereigns, slaves from masters, wives from husbands, and children from parents. And that another is the disappearance of the ecclesiastical view of marriage. Again, large cities have changed environment, as men become less dependent on women for their needs and possess (both men and women) resources and interests which the simple life of the country denies. Again, the new economic opportunities for women of the middle class rival the domestic and social life which marriage offers, and also bring into the industrial market a class of competitors with whom the standard of wages is simply what is sufficient to support the individual. It is also asserted that among the working class marriages are not less frequent, but the home is apt to be less comfortable on account of the tendency of women to go out to work. Hence, in the light of these facts, it is held by many that the monogamic family is a relic of a decaying form of civilization.

Things may seem to be by what they appear to be; and this is especially so with statistics. When man wants to say something and appear to be correct and concise, he calls on statistics and erects a respectable-looking support. If there is a decline in the family, it is more apparent than real; and we believe that this decline would more likely appear to a man studying statistics than to one living in some portions of this country. If we are to face a decline of the monogamic family, it certainly will have to act with much greater rapidity than it is now doing in order to do away with the family. We see computations made by astronomers and mathematicians as regards some hideous thing likely to occur some million or so years off. When there is a comfortable interval of time, worry need not besiege our souls; and it is so in this particular instance. They can prove a statistical decline; but we doubt the fact that proportionately they can prove any great decline as regards the family. In any event, we need not worry nor need any of our children, for many things can happen in a thousand years which no one can foretell. When the family declines all society declines and civilization is at an end.

THE PRESS ON HAROLD FREDERIC'S DEATH.

It will not be uninteresting to give readers the views of the press concerning Harold Frederic's death. Mr. Frederic was the well-known author of "The Damnation of Theron Ware," the London correspondent of the New York *Times*, and an author of rare promise. As we have already detailed in this journal of last month's issue, Mr. Frederic was, up to a few hours before his death, under the exclusive treatment of a Christian Science healer. His death has brought from the religious and secular press considerable discussion concerning the methods of this religious sect.

Most of the comments are severely condemnatory. A short history of the case may serve to refresh the memories of our readers. About the middle of August he suffered from a stroke of partial paralysis of the right side, complicated by heart disease and rheumatic fever. On September 20th he sent away all medical attendants and put himself in the hands of Christian Scientists. On October 30th doctors were called in again, but he died within thirty hours. A coroner's inquest was held, and from the evidence it was the opinion that death was accelerated by the want of medical treatment, and that if Mr. Frederic had continued under the care of doctors he would, in all human probability, have recovered. From the evidence presented, the coroner's jury brought a verdict of manslaughter against a Mrs. Mellis and Miss Lyon, both of whom were Christian Scientists.

The *Times* says: "Mutual benefit societies are not justified in accepting the followers of this cult on any terms, and their sane members should insist on the immediate expulsion of such undesirable associates. It should be remembered, too, that the Christian Scientist can and does put in peril even those who reject his blasphemous nonsense without hesitation. Nobody is safe when fanatics presume to treat—or leave untreated, rather—cases of infectious and contagious disease."

The *Interior*, a Presbyterian organ, of Chicago, says: "Christian Science is supplying a demand of some kind in human nature, or it would not extend. What is that felt want, and how can it be wholesomely satisfied? These are questions which must be considered. We would counsel those who are so located or situated that they can do so, to approach in the most friendly way those who are falling into this form of delusion, and learn what it is that commends it to them. This at present is unknown; but before any remedy can be intelligently supplied it must be known."

The *American Israelite*, of Cincinnati, after commenting on the circumstance attending Mr. Frederic's death, and expressing the opinion that both in medicine and religion the intellect plays a secondary part—that absurdities, no matter how great, find followers—says: "Never before did people believe so little and so much as at the present time. In this age of agnosticism, every other person one meets knows all about the things supposed by our fathers to be beyond the ken of the finite human mind. The most ignorant and most highly educated alike consult mediums. The greatest scientists openly proclaim their belief in spiritistic phenomena; and none of the vagaries of theosophy are too absurd to fail of acceptance by many of the most cultured and refined. Telepathy is, with a host of thinkers, the only refuge of escape from Spiritualism; while the orthodox Christian journals are admitting articles which can only impress their readers with belief in the truth of the grossest of mediumistic manifestations. Palmistry, phrenology, astrology, and the like, have a host of devotees among all classes, and nothing seems too improbable or too absurd for the average man's faith. I have heard a Unitarian minister of great ability and high standing express his belief in fairies, nixies, pixies, kobolds, banshees, and all the other products of folk-lore; and he even went so far as to accept the probability of bad thoughts being turned into such concrete things as spiders, toads, snakes, and the like. A crazy world, my masters!"

Under the editorial heading "Christian Manslaughter," *The Examiner* (Baptist, New York) says: "It is a proposition that cannot be success-

fully assailed that, since God has provided appropriate natural remedies for the cure of disease, he intends that man shall exercise his intelligence in searching out and applying them. The error of the Christian Scientists consists in the fact that they practically ignore the divine bounty, displayed in nature, the product of God's hand, and depend altogether upon psychological influences which, well enough in certain cases, are as ineffectual in others as the panacea of the charlatan. Even the high priestess of the cult is obliged, unless current rumor is at fault, to resort to the dentist for an ulcerated tooth."

The New World (Roman Catholic, Chicago) opens an editorial on the subject by saying that the great trouble with Christian Science is that it is not Christian and it is not a science. The editor continues: "In Mr. Frederic's case it proved to be a remarkably rapid and efficacious method of shuffling off the numerous ills that flesh is heir to. The doctors vigorously assert that they could have cured Mr. Frederic, if he only would have followed their directions. But this, at best, must be doubtful; and doctors are pretty sure to give themselves the benefit of the doubt in such cases. The evidence given at the inquest is rather calculated to convey the impression that the doctors had been working on Mr. Frederic for quite a while, and had given him very little help. There is serious talk now of prosecuting the Christian Scientist who attended him for manslaughter. The impression produced on us by all that we have read of the evidence is that Mr. Frederic would probably have died in any event before the year was up, and that the worst that can be truly said against the Christian Science people in this case is that death ensued a few weeks sooner than it would have come had the patient been left to the doctors. Even this, however, would justify the State in taking some steps to protect sick people from parties who, if not conscious imposters, are at least ignorant quacks."

The Watchman (Baptist, Boston) refers to the story of Thereon Ware, and says that if Mr. Frederic really believed the declarations he made in it concerning certain features of the Methodist Church, he must have been very credulous. It adds: "There is nothing surprising in the circumstance that the late Harold Frederic, who had such keen insight into the inconsistencies of the creed and practices of some evangelical Christians, should have lost his life because he was so enamored of Christian Science theories that he would not put himself into the hands of competent medical men, who knew that by taking violent exercise with his weak heart he was insuring his own speedy death. The credulity of the men who make it one of their strong points to assail credulity is one of the curious phenomena of history. It takes more faith to believe in Colonel Ingersoll's accounts than to accept the literal interpretation of everything attributed to Moses."—*Literary Digest.*

RECREATION A DUTY.

Never was good work done continuously without good rest. Strained organs are resentful; and this is particularly so with man's mind, for rest is the deep basis of this world's repair, and holds as good with a violet as with man's brain.

"Rest is not quitting the busy career;
Rest is the fitting of self to its sphere."

There is danger in repetition and routine, as their action soon wells into automatism and loses in its administration the best element of mind. Real work demands waste of brain tissue. It is inevitable that this waste must be repaired. Men who live in a narrow circle make their brains narrow, just as true as men who live a somber, exacting life are moulded somberly. All through life the influence of vocation is plain and manifest; and it can be safely said that a brain has its product—the mind—hued according to the intensity and character of its use. It can be demonstrated that routine and its consequent element, repetition, narrows a brain's function. It may become excellent in one particular line and dull in almost any other element. I have in mind a railway engineer, who is certainly as efficient a man as can be found. Upon the engine he is entirely a different creature from what he is elsewhere. On the engine every sense is trained perfectly to the nature of his vocation. He has ears so trained that every indication is met with unerring celerity—the profound noises around him seem to aid his hearing; his eyesight trained to see things in rapid transition—trained as to distances; his sense of smell perfect; his acute sensibility responds to the most trivial stimulant. Off of his engine he is, indeed, a dull, stolid human—his eyesight not only ordinary, but poor; his hearing so poor that he seems to hear with difficulty; his other senses possessing ordinary characters. Indeed, the nature of his vocation has made him pre-eminently a creature of vocation, a locomotive man, fit to only bide in best function upon a running engine. He has a locomotive hearing, locomotive sense of smell, eyesight adapted to rapid transit, and systemic nerves adapted to the especial needs of his vocation—an exemplification of the old saying that habit is stronger than nature.

Man's brain is the most perfect organ of impression and under morphic change in all organic life. Hence, its very nature of easy impressionability makes it an organ which can be ruined more readily and easily than all others. Hence, it behooves humanity to study this intricate and impressionable organ over and above all others; for it is the guider, controller and essenced life of all other organs. Its function sways all other functions; and if it is interpreted aright, it is true that others will be. Rest in its broadest sense—recreative rest—is imperatively demanded in brain use. Fixed ideas, routine function, monotonous function, cut deep grooves in a brain's function; hence, become pathologic conditions. Under the term is included not only a cessation of labor, but more than this—a withdrawal of the mind from the coloring and influence of routine and monotony. Sleep alone is incompetent to change the phase and scopeful effects of fixed idea, routine, and monotony; but it must be done by a withdrawal of the mind from fixed conditions to the contemplation of things which change, ease, and amuse a brain. Well-selected recreation, we maintain, is as imperatively demanded in the best brain function as sleep is.

A child's life is an exemplification of the best form of life calculated to develop and perfect a brain. When man ceases to have the broadening change of life as in a child, he only too soon becomes a creature

destined to become more or less the cramped being of routine and fixed idea. Jest is a product of fresh growth, and has its power in change. Recreation is a soul invigorant, and reinforces and accentuates the best form of rest. Recreation gives breadth, freshness, and psychic enjoyment; 'tis the power which takes a brain from the prodding pain of habit, withdraws blood from congestive areas of cortical substance to relieve them. Rest without recreation may never change the rhythmic flow of cellular action; while the two combined may not only clean away the wastes of brain use, but turn up new realms of thought to act the part of a true psychic invigorant. Rest is the immediate agent of repair; but recreation is the lubricant which makes a brain run with the least amount of friction. "Amusement," as Goethe says, "is as a golden cloud which, though but for a little, diverts man from his misery. If man had a higher idea of himself and his destiny, he would neither call his business amusement, nor amuse himself instead of transacting business." Recreation should never be considered as a luxury, but as an absolute necessity; for it is the most perfect soul recuperant and psychic reinforcer.

DR. REYNOLDS ON MEDICAL EDUCATION.

In the November issue attention was directed to the overzealous efforts of the Legislature of Iowa to regulate the qualifications of those who engage in the practice of medicine in that State, and to the inefficient medical schools, whose graduates are, it is assumed, under the protecting care of the political Board of Examiners in Iowa, permitted to impose on the credulous people.

This state of affairs is, in some measure, fairly chargeable to medical schools in different parts of the country. It seems difficult to bring about a uniform standard of requirements in the conduct of medical education.

The Association of American Medical Colleges, starting out with sixty members, included finally nearly all of the colleges in the United States, pledged to the observance of a fixed standard of requirements, the minimum of which, from 1895 to 1899, should be a fixed standard of preliminary education before matriculation, and attendance upon three annual courses of graded instruction of not less than six months each, in three separate years. As a means of aiding this movement, the American Medical Association, in 1892, demanded that all the colleges in the United States should adopt the minimum standard of the college association. Encouraged by this action, the college association gave notice in 1894 that in 1899 and subsequently, all candidates for the degree of Doctor of Medicine should be required to have attended four courses of college instruction, each in separate years.

Everything moved on with apparent harmony, and the much-desired reforms seemed about to be achieved, when, in the beginning of 1898, some schools holding membership in the college association, and pledged in honor to observe its requirements, announced their intention to continue the three years' requirement through the session of 1899, whilst other institutions, with less scruples of honor and conscience, boldly announced that after the session of 1899 all their matriculants shall engage to take four courses before applying for graduation. Now, this really means that

these institutions do not intend to require four courses of instruction before final examination until after the session of 1902.

In the meantime, at the annual meeting of the American Medical Association, held at Denver, Colo., June, 1898, it was unanimously resolved to extend the conditions excluding representation provided for in the Ninth Article of the By-Laws of the American Medical Association, by denying recognition to either the graduates, or those engaged in teaching them, who shall receive the degree of Doctor of Medicine, after January 1, 1899, on conditions below the minimum standard of requirements of the Association of American Medical Colleges.

This is undoubtedly a step in the right direction, and must eventually prove curative of a great evil.

The American Medical Association being the only organized body of the profession in the United States with authority to determine who shall or who shall not be recognized as Doctors of Medicine in the regular profession, has both the ability and the determination to enforce these requirements, if we may judge by the unanimity of sentiment which pervaded the meeting at the time the resolutions were introduced, and by the unanimous vote which was finally cast in favor of their adoption.

The few institutions which feel themselves able to defy its authority may flatter themselves for the present that the association can be diverted from its purpose by the false pretense that the resolutions providing for excluding representation were irregularly and illegally adopted. Reference to the Constitution, the By-Laws, and Ordinances of the American Medical Association, from the time of its organization to the present, will convince any intelligent person that the action at Denver was in strict accordance with the universal practice of that body, and perfectly harmonious with its Constitution and By-Laws.

It does not seem to the writer of this, within the range of possibility that an intelligent body of gentlemen taking such important action as is embraced in the resolutions providing conditions that shall hereafter exclude from representation, would hesitate for one moment to execute and continue to enforce this much-needed reform in the hitherto loose methods by which men have gained access to an honorable and learned profession.

It is not alone the mission of the American Medical Association to preserve harmony of organization; but its most important duty is to secure for the degree of Doctor of Medicine equal dignity and effect, no matter in what part of the country it may have been conferred.

DUDLEY S. REYNOLDS, M. D.

ARE THE GREEK AND LATIN LANGUAGES A NECESSITY?

It has long been a mooted point as regards whether Latin and Greek are a necessity in the study of certain professions, and particularly so in medicine. Charles F. Wingate[1] has summed up this question in a most admirable and common-sense way; and it will not, we believe, be uninteresting to hear his conclusions concerning the same. Thus he says: "Let us free our minds from cant and admit that while Latin and Greek are indispensable for the scholar, yet for the average man they are not so. The college student, toiling with a lexicon, cannot be expected to master the

[1] "What Shall Our Boys do for a Living?" by Charles F. Wingate Doubleday & McClure.

beauties of an intricate language. At best, the amount of real knowledge that he gets is very slight; and that is of a grammatical cast, which repels rather than inspires delight in the beauties of the thought expressed. The best of the classic authors can be read in translations, and, as Emerson said, 'What is the use of swimming Charles River, when one can walk across the bridge?'" It is manifest to every thinking man that the acquisition of any language cannot alter the general tenor of a brain; it will not make a genius out of a fool to know these languages. Certain it is, that no one can claim that as intellectual discipline they are absolutely necessary; for it can be shown by marked examples that such is not the fact. Thus Wingate says: "Herbert Spencer and Lincoln learned to think profoundly and express themselves clearly without the aid of Latin and Greek. John Bright, Beecher and Spurgeon did not learn eloquence from Demosthenes or Cicero. Daniel Webster gained distinction as an orator when he began to prune his speech of Latinisms and to use his mother tongue. Dr. Johnson talked terse, his written style was Johnsonese." He claims that it is a fault popularly ascribed to the college graduate that he is more or less conceited and worships his so-called superiorly endowed education, and that it has been asserted that self-made men are conceited and "worship their creator." To this he says that such men as are self-taught show the reverse, and pointsas illustrating this fact that Franklin, Herbert Spencer, Darwin, Lincoln, and Washington were marked examples of humility, "while the arrogance of a Freeman or the omniscience of a Macaulay prove that the severest intellectual discipline does not alter individual temperament." It is asserted that our seats of learning are usually hot-beds of conservatism. If college training make men intolerant of new ideas, it certainly speaks poorly for such training. There is no truth any plainer to thinking men that it is imperative upon any man to master his mother tongue first; then, if time and opportunity can afford, why indulge in the luxuries, if so desired. He points to the fact that as the struggle for existence grows fiercer that Latin and Greek are not in demand with students in the various seats of learning, as formerly; he shows that from 1880 to 1884 the academic classes at Yale increased from 612 to 1159, while the scientific from 190 to 655. At Harvard the academic classes doubled during the same period, while the scientific school increased from 97 students to 320. There is an old proverb which says: "That is not good language which all understand not." This is not poor logic; for we believe that if it can be demonstrated that as a discipline they are not necessary, that they add in no manner to the better efficiency of a brain, what, then, is the necessity to use this time when it might be employed to better advantage? There are few of us, indeed, who have not met with professional brothers whose ability stood as high, if not higher, than the student in Greek and Latin. We believe, as time comes and goes, these classical languages will be relegated to the position they justly occupy. It is a certainty that to the medical man they do not make him a creature either of greater utility or ability. Hence, if they are only an elegant accomplishment, they can be dispensed with in these days of competition and rush.

"PITILESS SEVERITY AGAINST THE BLIND."

Under this caption Mr. I. H. Lionberger, of St. Louis, writes to the *Republic* under date of December 10, 1898, and reviews the recent investigation of the Missouri State School for the Blind. Mr. Lionberger's statements are so explicit that we quote them extensively, and ask for him the careful attention of our readers:

The State School for the Blind is a public charity, maintained by public funds and managed by a Board of Managers appointed by the Governor.

Recently, upon complaint of certain of the inmates of that institution, fortified by affidavits of graduates, an inquiry was instituted by the State Board of Charities with respect to the manner in which it is conducted, and in the course of the investigation many of the students were called upon to testify and to express grievances. I was present during a part of the investigation and know that, whatever the real facts may be, a great many of the pupils were of opinion that they had been grossly abused. More than twenty of them testified that they had repeatedly been unable to eat the food prepared for them, either because of the improper manner in which it was cooked or on account of its bad quality. Other grievances were referred to, but it is unnecessary that I should mention them.

The inquiry was conducted, so far as the State Board of Charities is concerned, with the utmost fairness and an evident disposition to ascertain the truth, and nothing but the truth. What will be the finding of this board I cannot conjecture, but I have no doubt that it will be just, in view of the evidence produced before them. What I object to is the fact that before their report has been made public, the Board of Managers, acting perhaps under the influence of Dr. Sibley, have expelled from that institution half a dozen of the persons concerned in the inquiry, and put upon probation others of the pupils that participated in the prosecution of what they believed to be their grievances. So grave an indiscretion ought not to go unnoticed and uncondemned.

Whether the pupils were right or wrong in their assertion—and upon this point I cannot express an opinion—it is in the highest degree important for the future welfare of the school that investigations should not hereafter be absolutely precluded. By the expulsion of the men who have been active in the prosecution of charges, children will hereafter be intimidated into quiescence, however great the grievances and troubles they labor under. It is hardly necessary to say that a public institution of this character ought from time to time to be subjected to the most jealous scrutiny, and never left to the tender mercies of any man whomsoever. The expulsion of those active in the assertion of their grievance is a distinct and overwhelming notice to students that hereafter he who raises his voice against the manager shall have no right to participate in the bounty of the State.

I know that it will be said that a general spirit of insubordination was brought about by the preferment of charges, and that the instigators of this spirit ought to be expelled. I assert, upon the contrary, that they ought not to be expelled unless their prior or subsequent conduct shall justify such expulsion. Blind people are in a peculiar degree incompetent to think justly with respect to the relations of life, or to weigh with the same candor and reason the hardships and grievances which they are called upon to submit to. It is a notorious medical fact that they ought to be treated with exceptional indulgence by reason of their infirmity. They are in a peculiar sense wards of the people, and have a peculiar claim upon the forbearance and generosity of those who control them. Some of those expelled had had exceptionally good records up to the time of the investigation. Pending it and immediately afterwards, one of them, Mr. Land, received over a hundred marks, one-half of them for absence from class room during his attendance upon the Board of Charities. His treatment is a monstrous injustice, in view of all the facts in the case. The Board of Managers should have stood like a solid wall between Dr. Sibley and his resentments. It was their solemn duty to realize the peculiar responsibilities of their position and to prevent the irritation naturally due to the situation from becoming injurious and oppressive to the misguided students who inaugurated it. I believe those gentlemen to have been actuated by the highest motives; but that they also felt a certain resentment

against the complainants, I have no doubt, since their conduct testified an indignant repudiation of the aspersions put upon their management. They had no right to give vent to such a feeling at this time. The consequences to the welfare of the school are too serious; the moral effect upon the children is too overwhelmingly intimidating. The right to petition has always been an inalienable right of every Anglo-Saxon, and has ever been regarded as one of the most precious privileges of citizenship in a free republic. To punish one upon the mere ground that he gives utterance to his grievances and asks an investigation of his hardships is to do a monstrously unjust and unwise thing, not only to those immediately affected, but to the generations of children that shall come after. Public indignation ought to be aroused and some step taken to redress the wrong done.

There were facts connected with the investigation which were calculated of themselves to intimidate protestors. Mr. Harry Hawes, President of the Police Board, was counsel for Dr. Sibley. It is well known that Mr. Hawes is a personal representative of the government in this State. His mere retainer by Dr. Sibley might, in the mind of one less morbidly inclined than a blind person, rouse the suspicion that improper influences might be made to operate upon the Governor, upon whom the ultimate responsibility of deciding this question must rest. I know that from the first the protestants despaired of accomplishing the redress of their grievances, and I now know that their expulsion has had the most demoralizing and depressing effect upon the students who had the courage to come forward and testify. The board announce that they have restored order and that the discipline of the school has been much improved by reason of these expulsions. Surely, it is a strange time to utter such a boast! Order among blind people dominated by an irresponsible tyranny may very easily be maintained; and if, as has been done in this case, pupils be notified that they must be quiet, under penalty of expulsion, it is very unlikely that one will hereafter have the courage to raise his voice, however pathetic his condition.

What expulsion means to a blind student can with difficulty be realized by one who is more fortunate. This institution is the only one in the State wherein a blind person may obtain an education which will enable him to read, to learn a trade and to educate himself. During the eight years which the law allows him to be an inmate he is supported at the public expense. Many of them come from the poorest class of the people, and expulsion, therefore, is equivalent not only to deprivation of subsistence for a long period of time, but of all opportunities for education.

Dr. Sibley's conduct is utterly inexcusable. He should have been the first to intercede for those who accused him. It is the part of power to be magnanimous; and if he has been unjustly accused, he has been accused, as he knows better than any one else, by persons who are incompetent to feel and think as a people who are not so afflicted ought to feel and think, and he should have been the first to forgive the morbid, if you please, hallucinations of his blind opponents.

I write to you because my effort with the board has been futile. I protested before this expulsion was perpetrated, and I now seek to arouse the public attention to what I believe to be a gross wrong. I. H. LIONBERGER.

FREAKS.

The English newspapers seem to be unusually full of advertisements where unconsciously they beget not only strange anatomical construction, but even unknown anomalous conditions. Here, for instance, is one where we imagine that it will take a long time to get the proper occupant: "Furnished apartments suitable for a gentleman with folding doors." These two gentlemen better get a menagerie tent or a good sized barn: "Wanted a room by two gentlemen about thirty feet long and twenty feet broad." Here is a gentleman in a severely anomalous condition: "To be disposed of a small phaeton the property of a gentleman with a movable headpiece as good as new." Here is, indeed, a delightful pet for sale; some person overstocked with a large family might find it desirable: "Bull-dog for sale: will eat anything; very fond of children."

This Month's Contributors.—Following are the names and addresses of those who have contributed to this issue of the JOURNAL. The addresses are given that readers who so wish may write the authors directly:

Dr. Warren B. Outten, 3515 Pine street, St. Louis.
Dr. Dudley S. Reynolds, 304 W. Chestnut street, Louisville.
Dr. Thomas O. Summers, 2600 Gamble street, St. Louis.
Dr. Frank Webster Jay, Columbus Memorial Building, Chicago.
Dr. H. S. P. Lare, 1718 Olive street, St. Louis.
Dr. J. J. Conner, Pana, Ill.
Dr. G. Frank Lydston, 100 State street, Chicago.
Dr. Edward E. Parrish, Memphis, Mo.
Dr. James Moores Ball, 3509 Franklin avenue, St. Louis.
Dr. A. H. Ohmann-Dumesnil, 5 South Broadway, St. Louis.

The illustrations are by Messrs. M. Scott, Chronicle building, and Kirchner, Burlington building, St. Louis.

EDITORIAL NOTES.

The St. Louis Medical Society will soon have an election of officers to serve during 1899. We trust that those will be chosen who will have the best interests of the society at heart and who will conduct affairs on broad-gauge principles.

The St. Louis Academy of Medical and Surgical Sciences is having a growth which is highly satisfactory to all concerned. Many excellent programs have been rendered since the fall opening, and a number of distinguished guests from other cities have been entertained. One of the most successful meetings was that attended by Drs. J. H. Thompson and John Punton, of Kansas City. These gentlemen are enthusiastic members of the Kansas City Academy.

Speaking of Dr. Punton leads me to remark that he has lately purchased the *Kansas City Lancet*, and is rapidly making it one of the very best medical journals west of the Mississippi River.

In Poor Business.—We regret to see the following advertisement in the *Medical Summary*, a journal published in Philadelphia, and edited by R. H. Andrews, M. D.:

Justice to Undergraduate Doctors, Dentists, and Students.

Competent, skillful undergraduate practitioners furnishing sworn statements from county or State officers, or other satisfactory proof of years of successful practice in their respective professions, can have the degree of M. D. or D.D. S. lawfully conferred by a chartered medical college (at home without attendance). Those in attendance graduated when qualified, independent of time. Students can enter at any date. Courses and graduation in other sciences in connection; also courses by correspondence. For particulars address lock box 590, Chicago.

Our Christmas Number may strike some as non-medical; but we believe in living as time slides along, and we think the doctor is entitled to a little fun—once a year. We trust our readers will be "Faithful Unto Death," and that none will meet with the fate of "Poor Doc Jones," or have to operate on an "Atlantean Tumor," or be locked up during this merry season on account of "Physiological Inebriety." To one and all we wish the compliments of the season.

The "Philadelphia Medical Journal" has taken an advanced position in reference to exchange copies. Hereafter it will pay for those journals it wants, and any one desiring this excellent weekly must remit three dollars. What the effect of this startling change will be cannot be figured out in advance. It may save apparently, and be a losing policy actually.

The Tri-State Medical Society of Iowa, Illinois and Missouri will meet in annual session in the beautiful city of Quincy, Illinois, early in April. We would suggest that our readers begin now to prepare papers for this meeting. The sessions of this society are always of interest and many of the ablest American physicians and surgeons are members.

The Fifty-cent Hospitals seem to be losing ground in St. Louis, but the cheap doctor still roams his primeval haunts. It is much to the credit of the profession that its best men (not always those with greatest reputations or largest practices, but those whose principles are best) unanimously condemn the cheap hospital schemes and the abuse of medical charity. Some few, however, who were on the right side when the question was at white-heat, have accepted positions on the staff of the local hospital which was formerly deepest in the mire, and whose methods are yet the subject of criticism.

The Battle Hymn of the Republic, by Major Thomas Osmond Summers, shows that an educated physician can court the Muses with success. Doctor Summers can write as fine poetry as any American physician ever produced, and far better than the present poet-laureate of England ever dreamed about. We are all proud of Summers.

The Paying of Commissions to country doctors who bring patients to them is done by at least one of the Baptist institutions in this city, and will soon be made the subject of investigation by one of the medical societies.

The Cure of Cataract Without Operation is one of those dreams which occur from time to time. Just now a homœopathic drug firm is sending out literature to the effect that its particular drug will cure cataract. It is needless to say that no reliable testimony has been adduced to show that genuine lenticular cataract has been cured by drugs.

The Need of a Medical Library is felt in St. Louis. We have little in this line. It is to be hoped that the St. Louis doctors will get together soon and acccomplish something in the library line. Should two hundred men be found willing to pay $10.00 each per annum for five years, much could be done.

Cruelty to the Blind, of which Mr. Lionberger speaks in another part of this magazine, will no doubt cause much discussion. We wish to state that our pages are open to all interested. We have always recognized the right of each party to be heard.

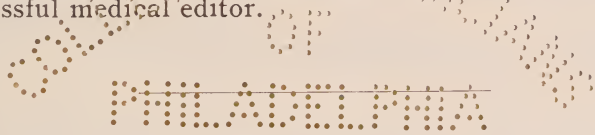
A Fire in the Printing House in which the JOURNAL is issued occurred on the night of December 17th, and accounts for the lateness of our Christmas number.

New Officers.—At the recent meeting of the Mississippi Valley Medical Association officers for the ensuing year were elected as follows: President, Dr. Duncan Eve, Nashville; first vice-president, Dr. A. J. Ochsner, Chicago; second vice-president, Dr. J. C. Morfit, St. Louis; secretary, Dr. Henry E. Tuley, Louisville, and treasurer, Dr. Dudley S. Reynolds, Louisville. The next meeting will be in Chicago, October, 1899. Dr. Harold N. Moyer is chairman of the Committee of Arrangements.

Elected.—At the meeting of the American Academy of Railway Surgeons held in Chicago, recently, Dr. W. W. Grant, of Denver, was elected president and Dr. T. B. Lacy, of Council Bluffs, Iowa, secretary. The next meeting will be held at Omaha, Nebraska, October, 1899.

Pan-American Congress.—Owing to the disturbed state of the country caused by revolution and epidemics, the Third Pan-American Congress will not meet in Caracas until December, 1900.

Dr. John Punton.—Dr. John Punton, of Kansas City, has recently purchased *Langsdale's Lancet* and has changed its name to *Kansas City Lancet*. We have known Dr. Punton for a long time and are sure he will make a successful medical editor.



HOMŒOPATHY.

Take a little rum,
  The less you take the better;
Pour it in the lakes
  Of Wener or of Wetter.

Dip a spoonful out,
  And mind you don't get groggy;
Pour it in the lake
  Of Winipisiogee.

Stir the mixture well,
  Lest it prove inferior;
Then put a half drop
  Into Lake Superior.

Every other day
  Take a drop in water;
You'll be better soon—
  Or at least you oughter.

—*Bishop Doane.*

W. B. ADDINGTON, PH. G.

At the head of the pioneer physicians' supply house of St. Louis is Mr. W. B. Addington, a veteran druggist and pharmaceutical chemist. He was born in Norfolk, Va., and graduated from the Philadelphia College of Pharmacy. He has been in the retail drug business for eighteen years. Mr. Addington is well qualified to attend to the wants of physicians and surgeons in the great territory tributary to St. Louis. Since he took charge of the St. Louis Physicians' Supply Company the sales of that concern have markedly increased.

Increased Capitalization.—On November 25th the Fairchild Chemical Laboratory Company, 306 N. Broadway, St. Louis, filed with the Secretary of State a statement of increase of stock from $200,000 to $500,000. This company is closely allied with the Luyties Pharmacal Co.

Appointed.—The U. S. Pharmacal Co., of Chicago, has just appointed H. D. Delkeskamp & Co. their St. Louis agents.

Personal.—Mr. J. W. Murray, representing Hance Bros. & White, of Philadelphia, passed through this city recently. Mr. H. Severson, their local representative, lately made a trip through northern Illinois.

G. H. Briscoe has been hustling around here in the interests of the Phospho-Albumen Co. for the past few days. He reports business good.

T. F. Barrett, who for some time represented the Searle & Hereth Co. in Missouri, has embarked in the retail drug business at Pittsburg, Kan.

S. W. Wright, general traveling salesman for the Searle & Hereth Co., has been stopping over a few days here on his way to Hot Springs, Ark., where he goes to spend his annual vacation.

Dr. C. O. Cheatam, one of the representatives of Parke, Davis & Co. at this point for the past two years, has been transferred to Georgia with headquarters at Atlanta. A. M. Finke has taken his place at this point.